



United States  
Department of  
Agriculture



NRCS

Natural  
Resources  
Conservation  
Service

In cooperation with  
United States Department  
of the Interior, Bureau of  
Land Management;  
University of Idaho,  
College of Agriculture; and  
Idaho Soil Conservation  
Commission

# Soil Survey of Franklin County Area, Idaho





# How To Use This Soil Survey

## General Soil Map

The general soil map, which is a color map, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units** for a general description of the soils in your area.

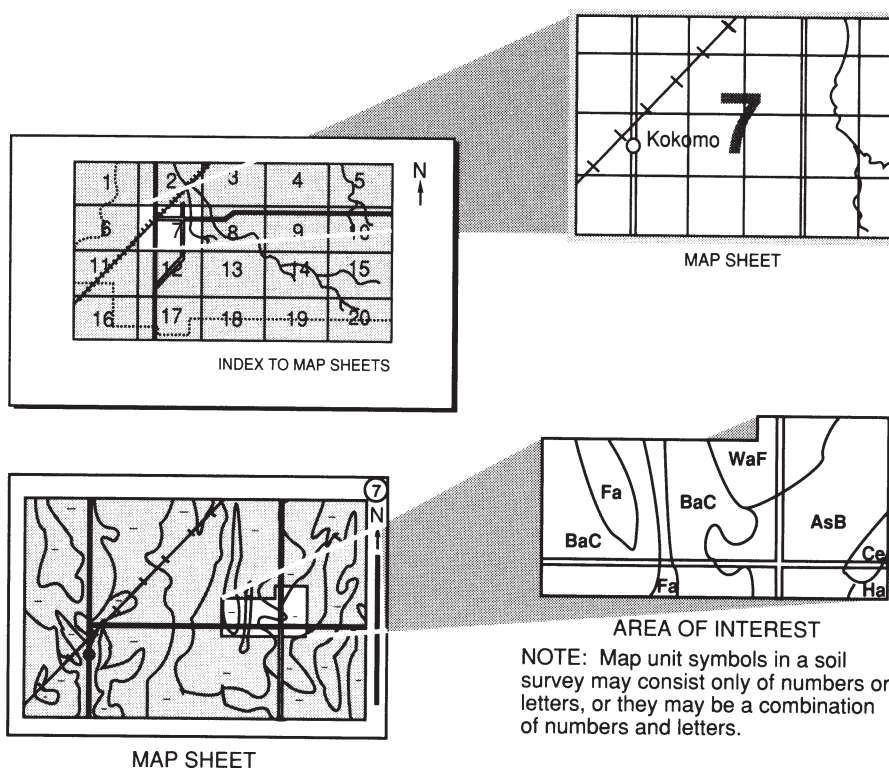
## Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



## National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1994. Soil names and descriptions were approved in 1997. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1994. This survey was made cooperatively by the Natural Resources Conservation Service; the United States Department of the Interior, Bureau of Land Management; the University of Idaho, College of Agriculture; and the Idaho Soil Conservation Commission. The survey is part of the technical assistance furnished to the Franklin Soil and Water Conservation District.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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## Cover Caption

View looking southwest along the Oneida Narrows Reservoir. Dranburn-Robin complex, 15 to 45 percent slopes, is on the north-facing slope in the foreground. Bergquist-Softback complex, 25 to 65 percent slopes, is on the west-facing slopes at the left. Bergquist-Vitale complex, 15 to 60 percent slopes, is in the background.

*Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at <http://www.nrcs.usda.gov>.*

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# Foreword

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This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Richard Sims  
State Conservationist  
Natural Resources Conservation Service





# Soil Survey of Franklin County Area, Idaho

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By Shawn McVey and Francis R. (Bob) Kukachka, Natural  
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Soil Conservation Commission

United States Department of Agriculture, Natural Resources  
Conservation Service,  
in cooperation with  
United States Department of the Interior, Bureau of Land  
Management; University of Idaho, College of Agriculture; and  
the Idaho Soil Conservation Commission

FRANKLIN COUNTY AREA is in the southeastern part of Idaho, at the northern end of Cache Valley (fig. 1). It includes all areas of Franklin County, except for the part in the Caribou National Forest. The total area is 305,600 acres, or about 478 square miles. Nearly 60 percent of the population in Franklin County comes from rural areas. The county had a population of 9,232 in 1990. In that year, Preston, the county seat, had a population of about 3,700.

The survey area consists mainly of north-south trending valleys bounded on the west by the Bannock and Malad Ranges, on the east by the Bear River Range of the Wasatch Front, and on the north by the Portneuf Range. The area is drained by the Bear River and its tributaries. The Bear River flows from the northeast through Mound Valley and Oneida Narrows and to the south through Cache Valley into Utah.

The highest elevation in the survey area, about 7,960 feet above sea level, is on Thatcher Hill, in the Portneuf Range. The lowest, about 4,435 feet, is in the southern part of the survey area, where the Bear River leaves Franklin County.

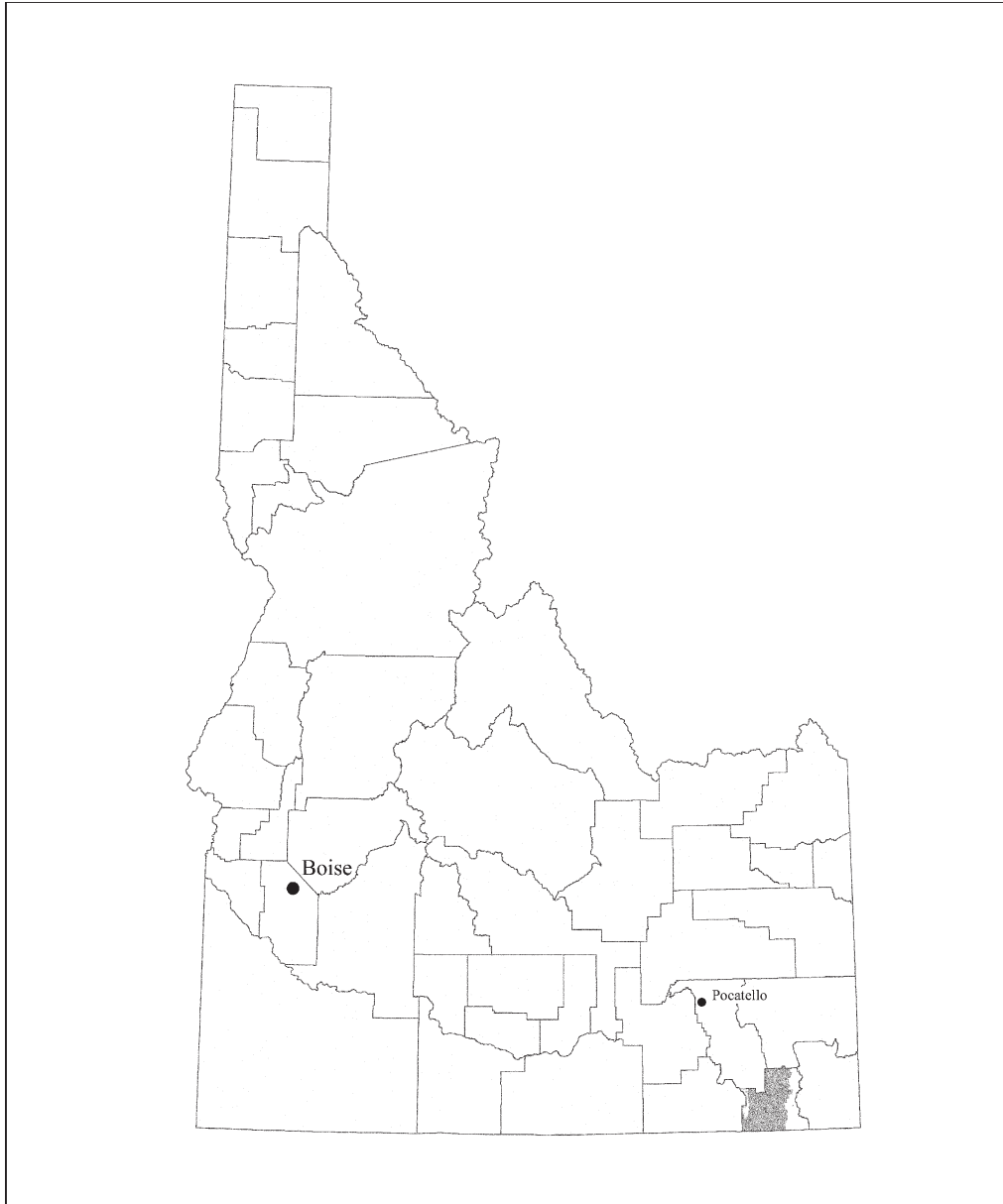
## General Nature of the Survey Area

This section gives general information about the survey area. It describes history and development, natural resources, agriculture, and climate.

### History and Development

Cache Valley, originally named Willow Valley, was given its present name by the mountain men who used the valley to hide the furs taken from the Bear River and its tributaries. Captain John Weber, Jim Bridger, William Sublette, and a party from the

## Soil Survey of Franklin County Area, Idaho



**Figure 1.—Location of Franklin County Area in Idaho.**

Rocky Mountain Fur Company entered the valley in the fall of 1824. They made the valley their winter headquarters, probably in an area along the Cub River. Men from the Hudson Bay and Missouri Fur Companies came to the valley for beaver. Warren Angus Ferris, from the American Fur Company, described Cache Valley as one of the most beautiful valleys of the Rocky Mountain Range.

The Native Americans of Cache Valley were hunters who ranged over a large area in search of food. Almost all of the Native Americans around the area were of the Shoshoni or Bannock Tribes. Later, other tribes either lived permanently in the valley or considered it their hunting grounds. At the time of the Battle of Bear River in 1863, there were hundreds of Native Americans in the valley. Many of them lived in the northern part of the survey area.

## Soil Survey of Franklin County Area, Idaho

The town of Franklin is the first permanent town in Idaho. A small number of Mormon pioneer families arrived by covered wagon and settled at the current site of Franklin on April 14, 1860. They all moved their wagons close together for protection, removed the wagon boxes (which they used for homes), and used the wagon gears to haul logs from the canyons to build their homes. They formed these homes into a square fort to protect themselves from local tribes. In the years that followed, other early settlements, such as Oxford, Weston, and Dayton, were established. By 1890, Preston was becoming the dominant location for settlers within northern Cache Valley.

Idaho's first reported irrigation took place in 1860 with water from Spring Creek, near the town of Franklin. Later, many other irrigation canals were developed, making water available to many areas.

In January 1913, Franklin County was officially established and separated from Oneida County. In 1946, the Oxford and Thatcher areas were annexed and the present county boundaries were established.

### **Natural Resources**

Soil and water are the most important natural resources in the survey area. The Bear River, which runs northeast to south through the county, is the largest drainage on the North American continent that does not reach the ocean (Randolph, 1978). Among the marketable products derived from the soil are small grains, hay, fruits and vegetables, and sand and gravel.

Water in the survey area is used primarily for domestic purposes, livestock, and irrigation. Springs and deep wells supply most of the water used for domestic purposes throughout the county. Perennial streams, springs, and wells provide adequate supplies of water for livestock in most parts of the survey area. Irrigation water in the valley is supplied by more than a dozen reservoirs developed for water storage. Water is diverted from major streams to irrigate small acreages in and along the adjacent bottom land.

Water also is used to generate electricity on Mink Creek, the Glendale Reservoir, and the Oneida Narrows Reservoir. Geothermal springs along the Bear River have given rise to recreational development and the potential for aquaculture and greenhouse specialty crops.

The mountains in the area offer many opportunities for recreation. Hunting, fishing, boating, and camping are the dominant recreational activities during the warmer months. Snow sports of all kinds are popular in winter.

Most mining activity in the county is for sand, gravel, and limestone. In the past, manganese, barite, specularite, and pyrite mines were worked.

### **Agriculture**

The farming and livestock industries in the survey area have flourished since the coming of the railroad. The first settlers quickly discovered the favorable combination of climate and fertile soil in the area. They began to plow up the sagebrush and plant crops. With the development of the tractor and bigger and better machinery, especially after World War II, large acreages of rangeland were converted to cropland. The acreage of nonirrigated and irrigated cropland is nearly equal in the survey area. Over 70 percent of the farmers irrigate their cropland (Idaho Department of Commerce, 1992). The irrigated areas are primarily on the valley floors.

About 67 percent of the agricultural income in the survey area is derived from the sale of livestock, poultry, and dairy products. The sale of dairy products is the largest single source of income. Crops account for 33 percent of the agricultural income. Wheat, barley, alfalfa, and some safflower and canola are the dominant crops grown

in the nonirrigated areas. Alfalfa, barley, and wheat are the major crops grown in the irrigated areas. A small irrigated acreage is used for silage corn or green beans. Small areas are used for meadow hay southeast of Oxford, along the Oxford Slough, and along the Bear River bottoms. Some vegetable and fruit crops are grown for local canneries. Most of the farms and ranches in the area have combined farming and livestock operations.

Most of the nonirrigated cropland in the survey area is gently sloping to moderately steep. As early as 1930, farmers took note of erosion and siltation along streams as land was converted from rangeland to cropland. They realized the need for soil and water conservation measures and practices to control the effects of soil erosion. As a result, on December 17, 1947, the Franklin Soil and Water Conservation District was established.

There are more than 700 farms in the county, and the average farm size is nearly 400 acres (Idaho Department of Commerce, 1992).

## **Climate**

Table 1 gives data on temperature and precipitation for the survey area as recorded at Preston, Idaho, in the period 1966 to 1990. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on length of the growing season.

In winter, the average temperature is 23 degrees F and the average daily minimum temperature is 13 degrees. The lowest temperature on record, which occurred on December 23, 1990, is -31 degrees. In summer, the average temperature is 66 degrees and the average daily maximum temperature is 83 degrees. The highest recorded temperature, which occurred on July 10, 1985, is 101 degrees.

Growing degree days are shown in table 1. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 16 inches. Of this, 8.2 inches, or 51 percent, usually falls in April through September. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall in April through September is less than 2.8 inches. The heaviest 1-day rainfall during the period of record was 2.2 inches on September 28, 1986. Thunderstorms occur on about 24 days each year, and most occur in July.

The average seasonal snowfall is about 35.1 inches. The greatest snow depth at any one time during the period of record was 35 inches.

The average relative humidity in midafternoon is about 44 percent. Humidity is higher at night, and the average at dawn is about 72 percent. The sun shines 79 percent of the time possible in summer and 44 percent in winter. The prevailing wind is from the southwest. Average windspeed is highest, 11.7 miles per hour, in April.

## **How This Survey Was Made**

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends



from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

## Soil Survey of Franklin County Area, Idaho

This survey area was mapped at two levels of detail. At the more detailed level, map units are narrowly defined and boundaries were plotted and verified at closely spaced intervals. At the less detailed level, map units are broadly defined and boundaries were plotted and verified at wider intervals. The detail of mapping was selected to meet the anticipated long-term use of the survey.

# General Soil Map Units

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The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one map unit can occur in another but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

Some of the boundaries on the general soil map of the survey area do not match those on the maps of adjacent survey areas, and some of the soil names and descriptions do not fully agree. Differences result mainly from improvements in the classification of soils, particularly modifications or refinements in soil series concepts. Some differences result from variations in the intensity of mapping or in the extent of the soils in the survey areas.

## Soils on Low Terraces and Flood Plains

This group consists of three map units. It makes up about 12 percent of the survey area. The soils in this group are on stream terraces, lake terraces, and flood plains along the Bear River and the Cub River. They formed in alluvium and lacustrine deposits derived from mixed sources.

### 1. Lando-Battle Creek-Trenton

*Very deep, nearly level to gently sloping, somewhat poorly drained and moderately well drained, silty and clayey soils (fig. 2)*

*Percentage of survey area: 7*

*Landform:*

Lando—stream terraces  
Battle Creek—lake terraces  
Trenton—lake terraces

*Elevation: 4,400 to 5,200 feet*

*Frost-free period: 100 to 130 days*

*Mean annual precipitation: 14 to 18 inches*

*Minor components: Parleys, Kidman, and Maplecreek soils*

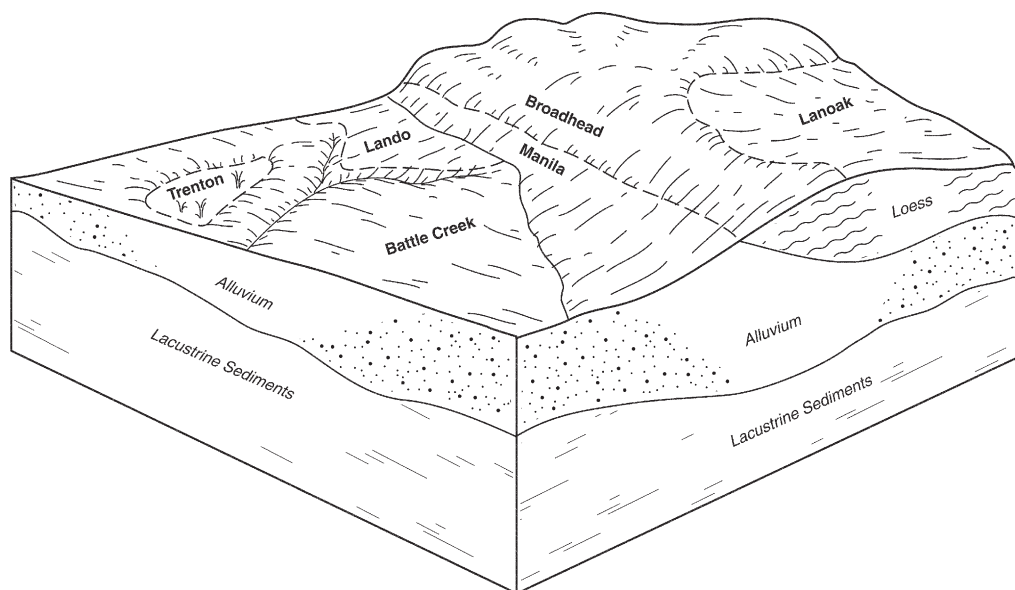


Figure 2.—Typical pattern of soils and underlying material in general soil map units 1 (Lando-Battle Creek-Trenton) and 10 (Manila-Lanoak-Broadhead).

*Current uses:* Cropland, hayland, pasture, and building site development

## 2. Windernot-Delish-Lewnot

*Very deep, nearly level, moderately well drained to poorly drained, sandy and loamy soils (fig. 3)*

*Percentage of survey area:* 2

*Landform:*

Windernot—stream terraces

Delish—stream terraces

Lewnot—stream terraces

*Elevation:* 4,400 to 5,100 feet

*Frost-free period:* 100 to 130 days

*Mean annual precipitation:* 14 to 16 inches

*Minor components:* Cachecan, Stinkcreek, and Battle Creek soils

*Current uses:* Cropland, hayland, pasture, and rangeland

## 3. Picabo-Thatcherflats-Bear Lake

*Very deep, nearly level, somewhat poorly drained and poorly drained, silty and clayey soils (fig. 4)*

*Percentage of survey area:* 3

*Landform:*

Picabo—stream terraces and flood plains

Thatcherflats—stream terraces

Bear Lake—flood plains

*Elevation:* 4,600 to 5,100 feet

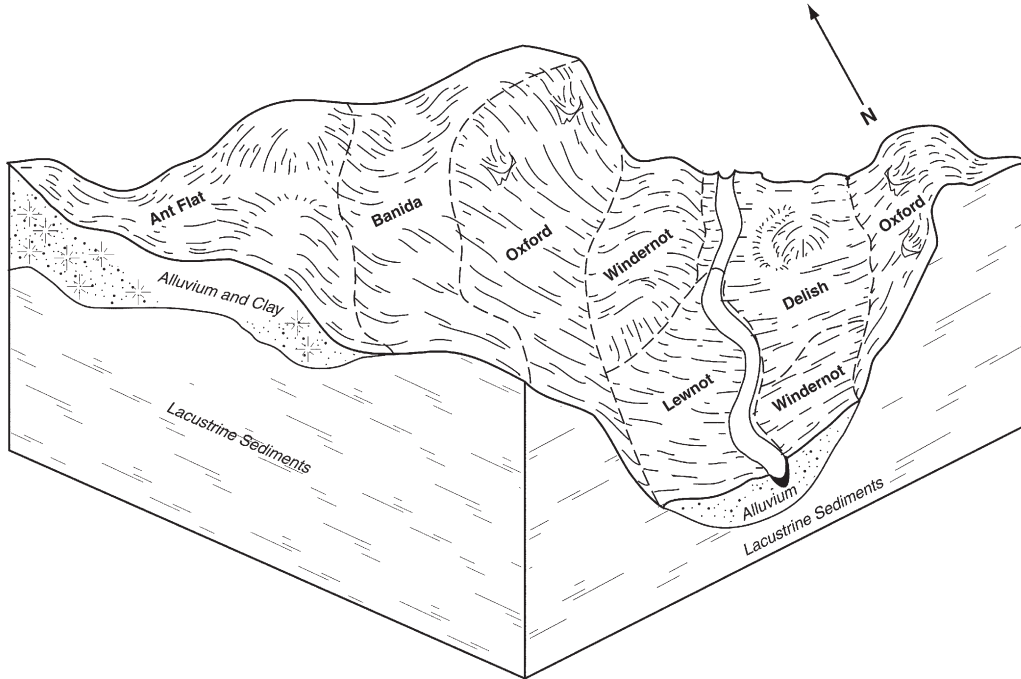
*Frost-free period:* 80 to 100 days

## Soil Survey of Soil Survey of Franklin County Area, Idaho

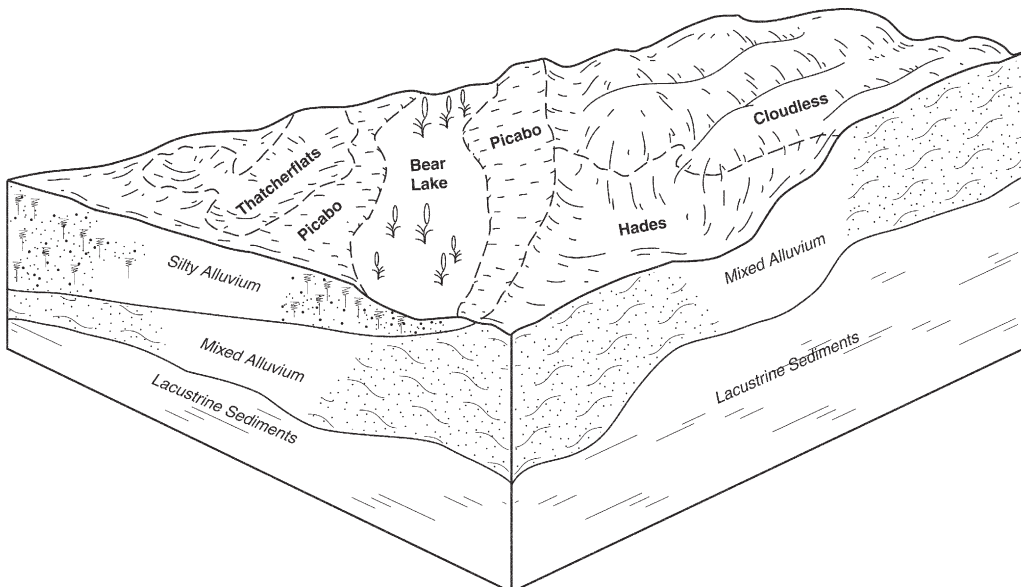
*Mean annual precipitation:* 14 to 16 inches

*Minor components:* Downata, Merkley, and Lago soils

*Current uses:* Cropland, hayland, pasture, and rangeland



**Figure 3.—Typical pattern of soils and underlying material in general soil map units 2 (Windernot-Delish-Lewnot) and 6 (Oxford-Ant Flat-Banida).**



**Figure 4.—Typical pattern of soils and underlying material in general soil map units 3 (Picabo-Thatcherflats-Bear Lake) and 12 (Cloudless-Hades).**



## Soils on Medium to High Terraces

This group consists of four map units. It makes up about 36 percent of the survey area. The soils in this group are on lake terraces, stream terraces, and hills of ancient Lake Bonneville. They formed in alluvium and lacustrine deposits derived from mixed sources.

### 4. Welby-Kidman-Preston

*Very deep, nearly level to very steep, well drained to excessively drained, loamy and sandy soils (fig. 5)*

*Percentage of survey area: 8*

*Landform:*

- Welby—lake terraces
- Kidman—stream terraces and lake terraces
- Preston—dunes

*Elevation: 4,400 to 5,100 feet*

*Frost-free period: 110 to 135 days*

*Mean annual precipitation: 13 to 17 inches*

*Minor components: Maplecreek, Layton, and Parleys soils*

*Current uses: Cropland, hayland, pasture, rangeland, and building site development*

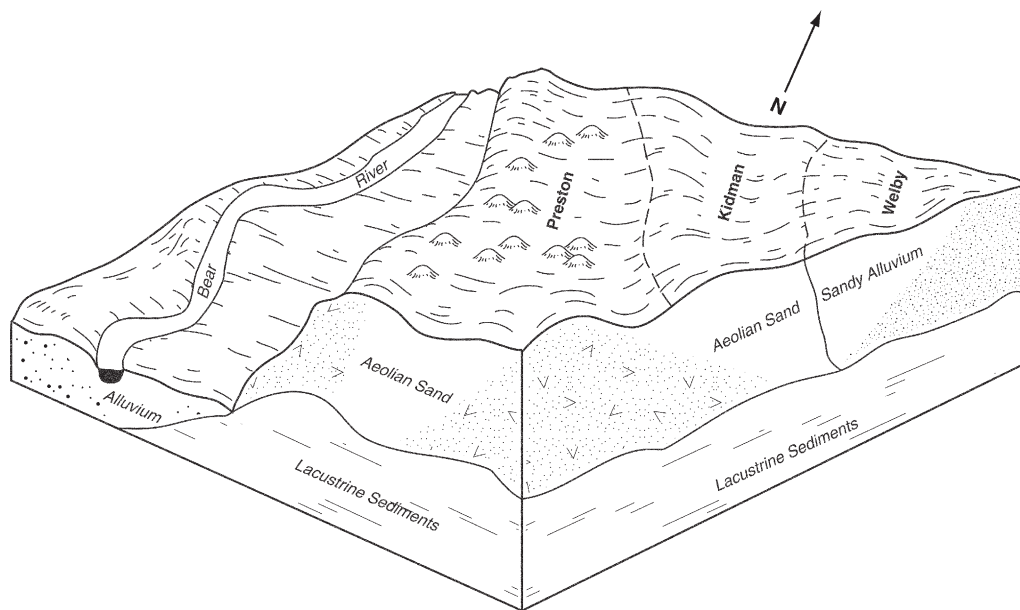
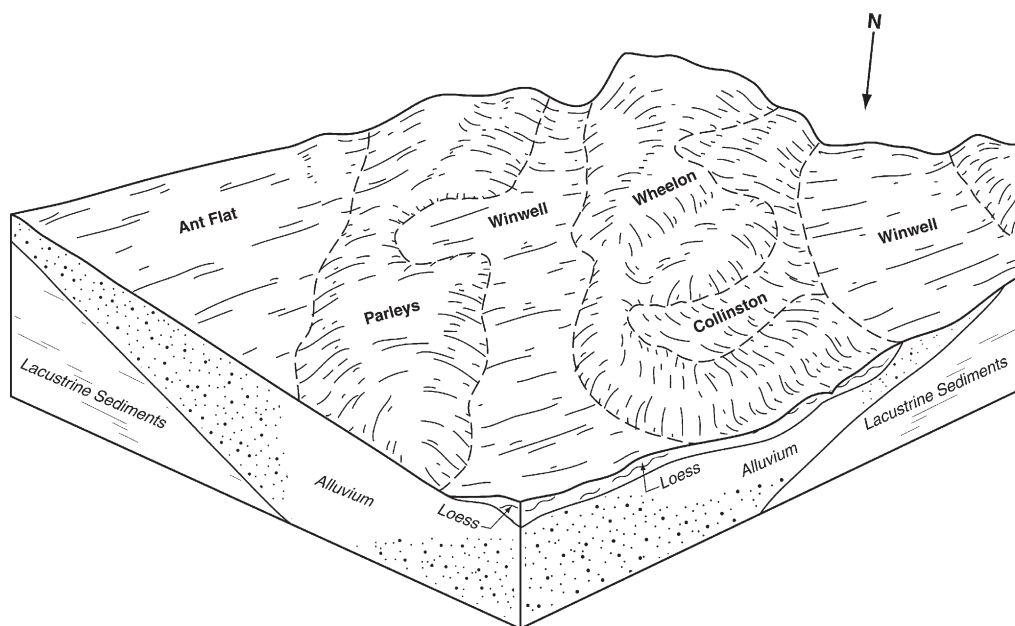


Figure 5.—Typical pattern of soils and underlying material in general soil map unit 4 (Welby-Kidman-Preston).

### 5. Parleys-Ant Flat-Winwell

*Very deep, nearly level to moderately steep, well drained and moderately well drained, clayey and silty soils (fig. 6)*

*Percentage of survey area: 6*



**Figure 6.—Typical pattern of soils and underlying material in general soil map units 5 (Parleys-Ant Flat-Winwell) and 7 (Wheelon-Collinston-Winwell).**

**Landform:**

- Parleys—lake terraces
- Ant Flat—lake terraces
- Winwell—lake terraces

**Elevation:** 4,400 to 5,500 feet

**Frost-free period:** 90 to 130 days

**Mean annual precipitation:** 14 to 17 inches

**Minor components:** Trenton, Kidman, and Welby soils

**Current uses:** Cropland, hayland, pasture, and building site development

## 6. Oxford-Ant Flat-Banida

*Very deep, nearly level to steep, well drained and moderately well drained, clayey soils (fig. 3)*

**Percentage of survey area:** 15

**Landform:**

- Oxford—lake terraces
- Ant Flat—lake terraces
- Banida—lake terraces

**Elevation:** 4,700 to 5,500 feet

**Frost-free period:** 90 to 120 days

**Mean annual precipitation:** 14 to 18 inches

**Minor components:** Manila, Brifox, and Hades soils

**Current uses:** Cropland, hayland, and building site development

## 7. Wheelon-Collinston-Winwell

*Very deep, nearly level to very steep, well drained, silty and clayey soils (fig. 6)*

*Percentage of survey area: 7*

*Landform:*

Wheelon—lake terraces

Collinston—lake terraces

Winwell—lake terraces

*Elevation: 4,500 to 5,200 feet*

*Frost-free period: 110 to 130 days*

*Mean annual precipitation: 14 to 16 inches*

*Minor components: Parleys, Dirtyhead, and Huffman soils*

*Current uses: Cropland (fig. 7), hayland, and building site development*



**Figure 7.—An area of summer fallow in the Wheelon-Collinston-Winwell general soil map unit. Detailed map unit 158 (Wursten-Dirtyhead complex, 12 to 30 percent slopes) is on the hills to the left. Detailed map unit 93 (Manila-Lonigan complex, 6 to 40 percent slopes) is on the slopes in the middle ground. The mountains in the background are part of the Malad Range in the Caribou National Forest.**

## Soils on Mountains, Hills, and Fan Remnants

This group consists of five map units. It makes up about 52 percent of the survey area, including 1 percent bodies of water (lakes, ponds, and other areas that are covered with deep water for most of the year). The soils in this group are on mountain slopes, hillslopes, and fan remnants of the Bear River Range of the Wasatch Mountains. They formed in alluvium, colluvium, and residuum derived from mixed metasedimentary and igneous rocks and somewhat influenced by loess.

## 8. Yeates Hollow-Vitale-Northwater

*Very deep to moderately deep, steep and very steep, well drained, gravelly and loamy soils (fig. 8)*

*Percentage of survey area: 13*

**Landform:**

Yeates Hollow—mountain slopes and hillslopes

Vitale—mountain slopes, mountain summits, and hillslopes

Northwater—mountain slopes

*Elevation: 5,000 to 8,000 feet*

*Frost-free period: 30 to 95 days*

*Mean annual precipitation: 15 to 30 inches*

*Minor components: Dranburn, Ireland, and Povey soils*

*Current uses: Rangeland and forest land*

## 9. Yeates Hollow-Manila-Softback

*Very deep, moderately steep and steep, well drained, gravelly and clayey soils (fig. 8)*

*Percentage of survey area: 12*

**Landform:**

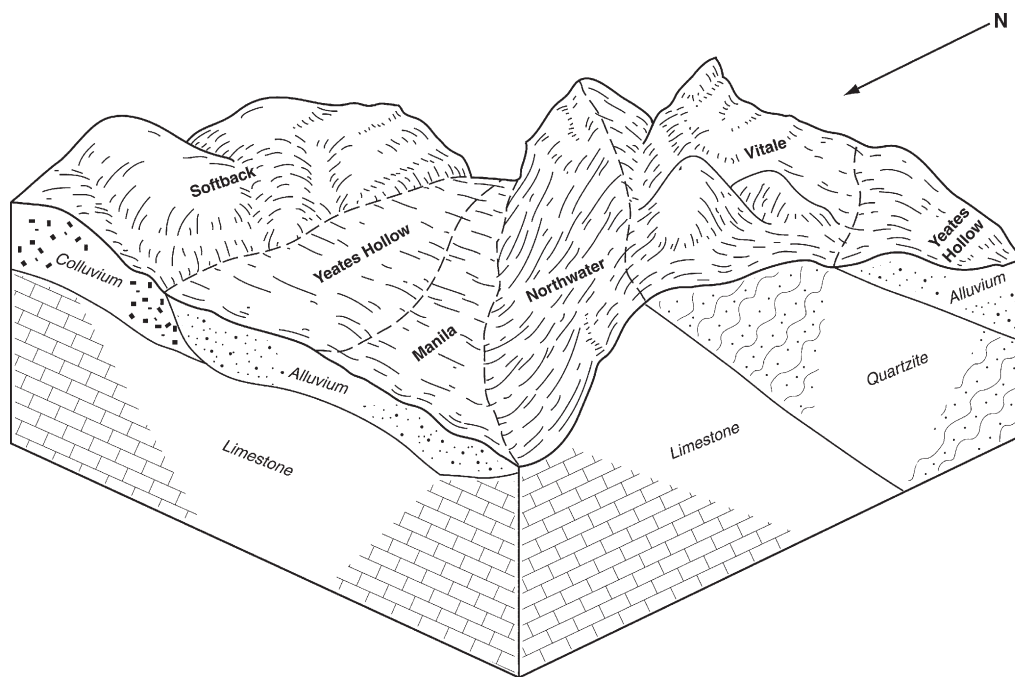
Yeates Hollow—mountain slopes and hillslopes

Manila—mountain slopes, hillslopes, and fan remnants

Softback—mountain slopes and hillslopes

*Elevation: 4,800 to 6,600 feet*

*Frost-free period: 60 to 95 days*



**Figure 8.—Typical pattern of soils and underlying material in general soil map units 8 (Yeates Hollow-Vitale-Northwater) and 9 (Yeates Hollow-Manila-Softback).**

*Mean annual precipitation:* 15 to 20 inches

*Minor components:* Foxol, Vitale, and Parkay soils

*Current uses:* Rangeland, forest land, and building site development

## 10. Manila-Lanoak-Broadhead

*Very deep, nearly level to steep, well drained, clayey and silty soils (fig. 2)*

*Percentage of survey area:* 6

*Landform:*

Manila—mountain slopes, hillslopes, and fan remnants

Lanoak—mountain slopes and hillslopes

Broadhead—mountain slopes and hillslopes

*Elevation:* 4,800 to 6,900 feet

*Frost-free period:* 55 to 100 days

*Mean annual precipitation:* 14 to 20 inches

*Minor components:* Lizdale, Hondoho, and Hades soils

*Current uses:* Cropland, hayland, pasture, rangeland, and building site development

## 11. Wormcreek-Lonigan-Manila

*Moderately deep and very deep, moderately steep to very steep, well drained, gravelly, ashy, and clayey soils (fig. 9)*

*Percentage of survey area:* 18

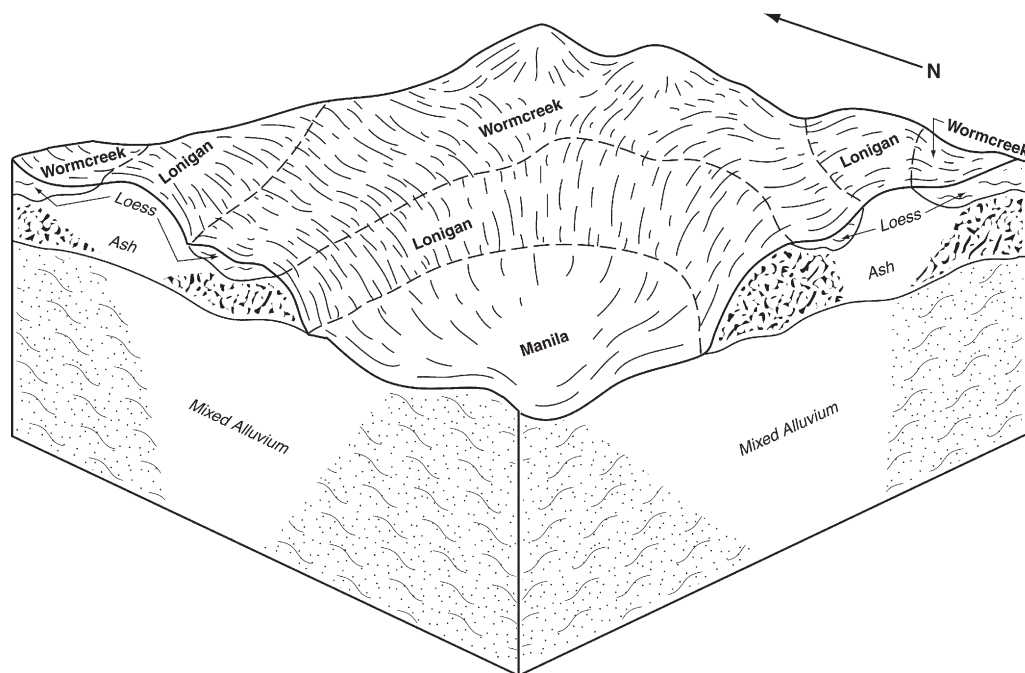


Figure 9.—Typical pattern of soils and underlying material in general soil map unit 11 (Wormcreek-Lonigan-Manila).



*Landform:*

Wormcreek—mountain slopes

Lonigan—mountains slopes and hillslopes

Manila—mountain slopes, hillslopes, and fan remnants

*Elevation:* 4,600 to 6,600 feet

*Frost-free period:* 60 to 110 days

*Mean annual precipitation:* 13 to 20 inches

*Minor components:* Yeates Hollow, Broadhead, and Copenhagen soils

*Current uses:* Cropland, hayland, pasture, rangeland, and building site development

## **12. Cloudless-Hades**

*Very deep, gently sloping to moderately steep, well drained, loamy soils (fig. 4)*

*Percentage of survey area:* 2

*Landform:*

Cloudless—fan remnants

Hades—mountain slopes, hillslopes, and fan remnants

*Elevation:* 4,800 to 6,700 feet

*Frost-free period:* 60 to 100 days

*Mean annual precipitation:* 14 to 20 inches

*Minor components:* Ant Flat, Lanoak, and Yeates Hollow soils

*Current uses:* Cropland, hayland, rangeland, and building site development



# Detailed Soil Map Units

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The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal properties and qualities to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis

of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Parleys silt loam, wet, 0 to 2 percent slopes, is a phase of the Parleys series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes or associations.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Vitale-Bergquist-Rock outcrop complex, 30 to 60 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Lonigan-Ricrest association, 50 to 80 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Pits, gravel, is an example.

Table 4 gives the acreage and proportionate extent of each map unit. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

In the map unit descriptions that follow, a semitabular format is used. In this format the major headings are centered in the column (for example, *Map Unit Setting*). They identify the information grouped directly below them. Introducing each item of information under the centered heading is a term or phrase (for example, *General Landscape*) that identifies or describes the information. Many of the centered headings and introductory terms are self-explanatory; however, some of them need further explanation and are defined in the Glossary. Explanations of the headings and introductory phrases are provided in the following paragraphs, generally in the order in which they are used in the map unit descriptions.

*Map Unit Setting* is given for the entire map unit. This section identifies the general landscape in which the map unit is located. The landscape positions given for the entire map unit generally are broader than those given for each component. The MLRA, or major land resource area, is listed next. The MLRA is a broad ecological area with characteristic climate, topography, vegetation, water resources, soils, and land use (USDA, 1981).

*Map Unit Composition* is given for the major components (soils or miscellaneous areas) identified in the name of the map unit as well as for the minor components. Dissimilar minor components are inextensive soils or miscellaneous areas that differ in use and management from the soils or miscellaneous areas for which the map unit is named. As explained above, minor components can either be similar or dissimilar. In the composition section, a single percentage is provided for a named soil and its similar soils because their use and management are similar.

*Characteristics* of the major components are given after the composition section. These include items of component setting, such as landform, slope shape, and aspect. Component properties and qualities give information on parent material, slope, depth to a restrictive feature, drainage class, available water capacity, and other important properties of the soil. Also provided are important interpretive groups, including land capability classifications and ecological site names and numbers. A brief typical profile description is given with horizons, horizon depth, and texture.

*Dissimilar Minor Components* are identified after the characteristics of the major soils are described. The extent of each minor component in the unit is indicated.

The heading *Major Uses* follows the description of dissimilar minor components.

## **1—Airport silty clay loam, 0 to 3 percent slopes**

### ***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,440 to 4,460 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 120 to 140 days

### ***Map Unit Composition***

Airport and similar soils—80 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Airport Soil***

#### **Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Calcareous, silty alluvium

*Slope:* 0 to 3 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 24 to 36 inches

*Salinity (maximum):* Strongly saline (about 18.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 28.0

*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6w

*Land capability subclass (irrigated):* 4w

*Ecological site:* Semiwet Saline Meadow (R028AY001ID)

#### **Typical profile**

A—0 to 4 inches; silty clay loam

B<sub>tn</sub>—4 to 16 inches; silty clay loam

B<sub>k</sub>—16 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Sandy and loamy, stratified soils—5 percent of the map unit
- Delish soils on convex slopes—5 percent of the map unit
- Cachecan soils on concave slopes—5 percent of the map unit
- Stinkcreek soils—5 percent of the map unit

### ***Major Uses***

Pasture and rangeland

## **2—Ant Flat silty clay loam, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,000 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 90 to 120 days

### ***Map Unit Composition***

Ant Flat and similar soils—85 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Ant Flat Soil***

#### **Setting**

*Landform:* Lake plains and lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Bt—8 to 24 inches; clay

Bk1—24 to 42 inches; clay

Bk2—42 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Aquolls—5 percent of the map unit
- Banida soils on convex slopes—5 percent of the map unit
- Soils that have a thin dark surface layer—2 percent of the map unit
- Soils that are calcareous throughout—2 percent of the map unit
- Soils that have less than 35 percent clay in the subsoil—1 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, and building site development

## **3—Ant Flat silty clay loam, 2 to 4 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,100 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 90 to 120 days

### ***Map Unit Composition***

Ant Flat and similar soils—85 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Ant Flat Soil***

#### **Setting**

*Landform:* Lake plains and lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 2 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Bt—8 to 24 inches; clay

Bk1—24 to 42 inches; clay

Bk2—42 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Banida soils on convex slopes and narrow ridges—10 percent of the map unit
- Pollynot soils on convex slopes—3 percent of the map unit
- Oxford soils on convex slopes—2 percent of the map unit



### **Major Uses**

Irrigated and nonirrigated cropland, hayland, and building site development

## **4—Ant Flat silty clay loam, 4 to 12 percent slopes**

### **Map Unit Setting**

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,800 to 5,500 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 90 to 120 days

### **Map Unit Composition**

Ant Flat and similar soils—90 percent

Dissimilar minor components—10 percent

### **Characteristics of the Ant Flat Soil**

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Bt—8 to 24 inches; clay

Bk1—24 to 42 inches; clay

Bk2—42 to 60 inches; silty clay loam

### **Dissimilar Minor Components**

- Cloudless soils that have slopes of 6 to 12 percent—10 percent of the map unit

### **Major Uses**

Irrigated and nonirrigated cropland and hayland

## **5—Ant Flat-Oxford complex, 4 to 12 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,800 to 5,200 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 90 to 105 days

### ***Map Unit Composition***

Ant Flat and similar soils—65 percent  
Oxford and similar soils—25 percent  
Dissimilar minor components—10 percent

### ***Characteristics of the Ant Flat Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 4 to 8 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e  
*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam  
Bt—8 to 24 inches; clay  
Bk1—24 to 42 inches; clay  
Bk2—42 to 60 inches; silty clay loam

### ***Characteristics of the Oxford Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

## Soil Survey of Franklin County Area, Idaho

*Slope:* 6 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 9.4 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 4e

### **Typical profile**

Ap—0 to 5 inches; silty clay

Bw—5 to 26 inches; silty clay

Bky—26 to 63 inches; clay

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 4 percent or more than 12 percent—5 percent of the map unit
- Cloudless soils that have slopes of 6 to 12 percent—5 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland and hayland

## **6—Ant Flat-Oxford complex, 12 to 20 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,800 to 5,000 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 90 to 105 days

### ***Map Unit Composition***

Ant Flat and similar soils—50 percent

Oxford and similar soils—35 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Ant Flat Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 20 percent

## Soil Survey of Franklin County Area, Idaho

*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

### Typical profile

Ap—0 to 8 inches; silty clay loam  
Bt—8 to 24 inches; clay  
Bk1—24 to 42 inches; clay  
Bk2—42 to 60 inches; silty clay loam

### **Characteristics of the Oxford Soil**

### Setting

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* Southeast to northwest (clockwise)

### Properties and qualities

*Parent material:* Lacustrine deposits  
*Slope:* 12 to 20 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 9.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

### Typical profile

Ap—0 to 5 inches; silty clay  
Bw—5 to 26 inches; silty clay  
Bky—26 to 63 inches; clay

### **Dissimilar Minor Components**

- Winwell soils on concave slopes—10 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 20 percent—5 percent of the map unit

### **Major Uses**

Nonirrigated cropland and hayland (fig. 10)



Figure 10.—Hayland in an area of Ant Flat-Oxford complex, 12 to 20 percent slopes, near Lamont Reservoir. Sterling and Cedarhill soils are on the hills past the reservoir. The Wasatch Range of the Cache National Forest is in the background.

## 7—Arbone loam, 0 to 4 percent slopes

### *Map Unit Setting*

*General landscape:* Alluvial plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,100 feet

*Mean annual precipitation:* 12 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 90 to 100 days

### *Map Unit Composition*

Arbone and similar soils—80 percent

Dissimilar minor components—20 percent

### *Characteristics of the Arbone Soil*

#### **Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 9.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 8 inches; loam  
Bw—8 to 21 inches; loam  
Bk—21 to 60 inches; fine sandy loam

***Dissimilar Minor Components***

- Oxford soils on convex slopes—10 percent of the map unit
- Huffman soils on linear slopes—5 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland and hayland

**8—Banida silty clay loam, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,200 feet  
*Mean annual precipitation:* 15 to 18 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 90 to 110 days

***Map Unit Composition***

Banida and similar soils—85 percent  
Dissimilar minor components—15 percent

***Characteristics of the Banida Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low



*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 9.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

#### **Typical profile**

Ap—0 to 6 inches; silty clay loam

Bw1—6 to 22 inches; silty clay

Bw2—22 to 35 inches; silty clay

Bk—35 to 64 inches; silty clay

#### ***Dissimilar Minor Components***

- Ant Flat soils on concave slopes and in depressions—10 percent of the map unit
- Oxford soils on convex slopes and narrow ridges—5 percent of the map unit

#### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, and building site development

## **9—Banida silty clay loam, 2 to 4 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 90 to 110 days

#### ***Map Unit Composition***

Banida and similar soils—80 percent

Dissimilar minor components—20 percent

#### ***Characteristics of the Banida Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 2 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches



*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 9.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 6 inches; silty clay loam

Bw1—6 to 22 inches; silty clay

Bw2—22 to 35 inches; silty clay

Bk—35 to 64 inches; silty clay

***Dissimilar Minor Components***

- Oxford soils on convex slopes—10 percent of the map unit
- Ant Flat soils on concave slopes and in depressions—10 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland and hayland

**10—Battle Creek silty clay loam, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,700 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 120 to 130 days

***Map Unit Composition***

Battle Creek and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Battle Creek Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 5.0

*Available water capacity (entire profile):* High (about 10.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 3s*

*Land capability subclass (irrigated): 3s*

**Typical profile**

Ap—0 to 8 inches; silty clay loam

AB—8 to 11 inches; silty clay

Bt—11 to 19 inches; silty clay

Btk—19 to 40 inches; silty clay

Bk—40 to 60 inches; silty clay

***Dissimilar Minor Components***

- Somewhat poorly drained soils—10 percent of the map unit
- Aquolls—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

**11—Battle Creek silty clay loam, 2 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,700 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 120 to 130 days

***Map Unit Composition***

Battle Creek and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Battle Creek Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 2 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 5.0

*Available water capacity (entire profile):* High (about 10.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 3e*

*Land capability subclass (irrigated): 3e*

**Typical profile**

Ap—0 to 8 inches; silty clay loam  
AB—8 to 11 inches; silty clay  
Bt—11 to 19 inches; silty clay  
Btk—19 to 40 inches; silty clay  
Bk—40 to 60 inches; silty clay

***Dissimilar Minor Components***

- Poorly drained soils—10 percent of the map unit
- Trenton soils in depressions—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

**12—Battle Creek silty clay loam, 4 to 8 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,400 to 4,700 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 120 to 130 days

***Map Unit Composition***

Battle Creek and similar soils—95 percent  
Dissimilar minor components—5 percent

***Characteristics of the Battle Creek Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 4 to 8 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 5.0  
*Available water capacity (entire profile):* High (about 10.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e  
*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 8 inches; silty clay loam  
AB—8 to 11 inches; silty clay  
Bt—11 to 19 inches; silty clay  
Btk—19 to 40 inches; silty clay  
Bk—40 to 60 inches; silty clay

***Dissimilar Minor Components***

- Somewhat poorly drained soils—3 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 8 percent—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

**13—Bear Lake-Chesbrook-Picabo complex, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Plains  
*Major land resource area (MLRA):* 13  
*Elevation:* 4,900 to 5,100 feet  
*Mean annual precipitation:* 15 to 16 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 80 to 95 days

***Map Unit Composition***

Bear Lake and similar soils—40 percent  
Chesbrook and similar soils—30 percent  
Picabo and similar soils—15 percent  
Dissimilar minor components—15 percent

***Characteristics of the Bear Lake Soil***

**Setting**

*Landform:* Flood plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Occasional  
*Ponding:* Occasional  
*Seasonal high water table (minimum depth):* About 0 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 1.0  
*Available water capacity (entire profile):* Moderate (about 8.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 5w*

*Land capability subclass (irrigated): 5w*

*Ecological site: Wet Meadow (R013XY038ID)*

**Typical profile**

A—0 to 11 inches; silty clay loam

Bkg1—11 to 20 inches; silty clay loam

Bkg2—20 to 26 inches; silty clay loam

Bkg3—26 to 60 inches; silty clay loam

***Characteristics of the Chesbrook Soil***

**Setting**

*Landform: Flood plains*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Representative aspect: North*

*Range in aspect: All aspects*

**Properties and qualities**

*Parent material: Silty alluvium*

*Slope: 0 to 2 percent*

*Restrictive feature: None within a depth of 60 inches*

*Drainage class: Poorly drained*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high*

*Flooding: Rare*

*Ponding: None*

*Seasonal high water table (minimum depth): About 6 to 18 inches*

*Salinity (maximum): Nonsaline (about 1.0 mmho/cm)*

*Sodicity (maximum): Sodium adsorption ratio of about 2.0*

*Available water capacity (entire profile): Very high (about 12.9 inches)*

**Interpretive groups**

*Land capability subclass (nonirrigated): 5w*

*Land capability subclass (irrigated): 5w*

*Ecological site: Wet Meadow (R013XY038ID)*

**Typical profile**

Oi—0 to 2 inches; slightly decomposed plant material

Akg—2 to 20 inches; silty clay loam

Bkg—20 to 48 inches; silty clay loam

Ckg—48 to 62 inches; silty clay loam

***Characteristics of the Picabo Soil***

**Setting**

*Landform: Stream terraces*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Representative aspect: North*

*Range in aspect: All aspects*

**Properties and qualities**

*Parent material: Mixed alluvium*

*Slope: 0 to 2 percent*

*Restrictive feature: None within a depth of 60 inches*

*Drainage class: Somewhat poorly drained*

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*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 24 to 48 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 19.0

*Available water capacity (entire profile):* Very high (about 13.0 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3w

*Land capability subclass (irrigated):* 3w

*Ecological site:* Semiwet Meadow (R028AY029ID)

### **Typical profile**

Ak—0 to 4 inches; silt loam

ABk—4 to 16 inches; silt loam

Bk1—16 to 45 inches; silt loam

Bk2—45 to 51 inches; silt loam

Bkg—51 to 65 inches; silt loam

### ***Dissimilar Minor Components***

- Iphil soils on convex slopes and the higher stream terraces—5 percent of the map unit
- Merkley soil on convex slopes—5 percent of the map unit
- Lago soils on slightly convex slopes—5 percent of the map unit

### ***Major Uses***

Pasture and rangeland

## **14—Bear Lake-Downata complex, 0 to 1 percent slopes**

### ***Map Unit Setting***

*General landscape:* Plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 90 days

### ***Map Unit Composition***

Bear Lake and similar soils—50 percent

Downata and similar soils—35 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Bear Lake Soil***

#### **Setting**

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

## Soil Survey of Franklin County Area, Idaho

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Frequent

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 18 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 8.6 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R028AY028ID)

### Typical profile

A—0 to 11 inches; silty clay loam

Bkg1—11 to 20 inches; silty clay loam

Bkg2—20 to 26 inches; silty clay loam

Bkg3—26 to 60 inches; silty clay loam

### **Characteristics of the Downata Soil**

### Setting

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Silty alluvium

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Very poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Frequent

*Ponding:* Frequent

*Seasonal high water table (minimum depth):* About 0 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Very high (about 12.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Marsh Scac/tyla (R028AY030ID)

### Typical profile

Oi—0 to 1 inch; slightly decomposed plant material

Ag—1 to 12 inches; silt loam

2Bgb—12 to 59 inches; silty clay loam

2Cgb—59 to 63 inches; silt loam

### **Dissimilar Minor Components**

- Picabo soils on the slightly higher convex slopes—10 percent of the map unit



- Thatcherflats soils on the slightly higher concave slopes—5 percent of the map unit

***Major Uses***

Pasture and rangeland

**15—Bear Lake-Downata-Thatcherflats complex, 0 to 1 percent slopes**

***Map Unit Setting***

*General landscape:* Plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 90 days

***Map Unit Composition***

Bear Lake and similar soils—50 percent

Downata and similar soils—25 percent

Thatcherflats and similar soils—20 percent

Dissimilar minor components—5 percent

***Characteristics of the Bear Lake Soil***

**Setting**

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Frequent

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 18 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 8.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R028AY028ID)

**Typical profile**

A—0 to 11 inches; silty clay loam

Bkg1—11 to 20 inches; silty clay loam

Bkg2—20 to 26 inches; silty clay loam

Bkg3—26 to 60 inches; silty clay loam

### ***Characteristics of the Downata Soil***

#### **Setting**

*Landform:* Flood plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 0 to 1 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Very poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Frequent  
*Ponding:* Frequent  
*Seasonal high water table (minimum depth):* About 0 to 0 inches  
*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Very high (about 12.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w  
*Land capability subclass (irrigated):* 5w  
*Ecological site:* Marsh Scac/tyla (R028AY030ID)

#### **Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material  
Ag—1 to 12 inches; silt loam  
2Bgb—12 to 59 inches; silty clay loam  
2Cgb—59 to 63 inches; silt loam

### ***Characteristics of the Thatcherflats Soil***

#### **Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 0 to 1 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 36 to 48 inches  
*Salinity (maximum):* Slightly saline (about 6.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 83.0  
*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4s  
*Land capability subclass (irrigated):* 4s

*Ecological site:* Alkali Flats 8-12 Save4/e1e15 (R028AY011ID)

**Typical profile**

A—0 to 4 inches; silt loam

B<sub>tn</sub>—4 to 16 inches; silty clay loam

B<sub>tkn</sub>—16 to 61 inches; silty clay loam

***Dissimilar Minor Components***

- Picabo soils on the slightly higher convex slopes—5 percent of the map unit

***Major Uses***

Pasture and rangeland

**16—Bear Lake-Lago complex, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Bear Lake and similar soils—65 percent

Lago and similar soils—30 percent

Dissimilar minor components—5 percent

***Characteristics of the Bear Lake Soil***

**Setting**

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (K<sub>sat</sub>):* Moderately high

*Flooding:* Occasional

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 18 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 8.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R013XY038ID)

**Typical profile**

A—0 to 11 inches; silty clay loam  
Bkg1—11 to 20 inches; silty clay loam  
Bkg2—20 to 26 inches; silty clay loam  
Bkg3—26 to 60 inches; silty clay loam

***Characteristics of the Lago Soil***

**Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 18 to 36 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 10.5 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4w  
*Land capability subclass (irrigated):* 4w  
*Ecological site:* Semiwet Meadow (R013XY039ID)

**Typical profile**

A—0 to 9 inches; silt loam  
Bk—9 to 16 inches; silt loam  
Bkg—16 to 45 inches; silt loam  
Cg—45 to 60 inches; sandy loam

***Dissimilar Minor Components***

- Soils that are on concave slopes and have 5 to 15 percent gravel—2 percent of the map unit
- Moderately well drained soils—2 percent of the map unit
- Picabo soils on convex slopes on stream terraces—1 percent of the map unit

***Major Uses***

Hayland, pasture, and rangeland

**17—Bearhollow-Brifox-lphil complex, 20 to 35 percent slopes**

***Map Unit Setting***

*General landscape:* Hills  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,400 to 5,600 feet

## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 80 to 90 days

### **Map Unit Composition**

Bearhollow and similar soils—30 percent

Brifox and similar soils—25 percent

lphil and similar soils—20 percent

Dissimilar minor components—25 percent

### **Characteristics of the Bearhollow Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* South to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 20 to 35 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 7.0

*Available water capacity (entire profile):* Moderate (about 7.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

#### **Typical profile**

Ap—0 to 4 inches; gravelly loam

A—4 to 9 inches; gravelly loam

Bk1—9 to 22 inches; gravelly loam

Bk2—22 to 43 inches; gravelly loam

Bk3—43 to 60 inches; gravelly loam

### **Characteristics of the Brifox Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* South to northwest (clockwise)

#### **Properties and qualities**

*Parent material:*

*Slope:* 20 to 35 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

## Soil Survey of Franklin County Area, Idaho

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 10.4 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

### **Typical profile**

Ap—0 to 7 inches; silty clay

Bss—7 to 18 inches; silty clay

Bkss—18 to 60 inches; silty clay

### ***Characteristics of the lphil Soil***

### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* South to northwest (clockwise)

### **Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 20 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 10.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

### **Typical profile**

Ap—0 to 8 inches; silt loam

AB—8 to 15 inches; silt loam

Bk—15 to 60 inches; silt loam

### ***Dissimilar Minor Components***

- Soils that have less than 18 percent clay in the subsoil—10 percent of the map unit
- Cedarhill soils on steep south-facing slopes—10 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit

### ***Major Uses***

Nonirrigated cropland, hayland, and rangeland

## **18—Bergquist-Rubble land complex, 50 to 75 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 5,800 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 42 to 46 degrees F

*Frost-free period:* 60 to 90 days

### ***Map Unit Composition***

Bergquist and similar soils—60 percent

Rubble land—15 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Bergquist Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* Northeast to east (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum

*Slope:* 50 to 75 percent

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

#### **Typical profile**

A—0 to 5 inches; very gravelly loam

Bw—5 to 12 inches; very gravelly loam

C—12 to 54 inches; extremely gravelly sandy loam

R—54 to 64 inches; unweathered bedrock

### ***Characteristics of the Rubble Land***

Rubble land occurs as scree slopes made up dominantly of cobbles, stones, and boulders. These slopes support little, if any, vegetation.

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 50 percent—10 percent of the map unit
- Foxol soils on convex slopes and on ridges—10 percent of the map unit
- Valmar soils on concave slopes—5 percent of the map unit



**Major Use**

Rangeland

**19—Bergquist-Softback complex, 25 to 65 percent slopes**

**Map Unit Setting**

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 6,600 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 60 to 90 days

**Map Unit Composition**

Bergquist and similar soils—45 percent

Softback and similar soils—30 percent

Dissimilar minor components—25 percent

**Characteristics of the Bergquist Soil**

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum

*Slope:* 25 to 65 percent

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.5 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

**Typical profile**

A—0 to 5 inches; very gravelly loam

Bw—5 to 12 inches; very gravelly loam

C—12 to 54 inches; extremely gravelly sandy loam

R—54 to 64 inches; unweathered bedrock

**Characteristics of the Softback Soil**

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

### Properties and qualities

*Parent material:* Mixed colluvium

*Slope:* 25 to 65 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.6 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

### Typical profile

Oi—0 to 1 inch; slightly decomposed plant material

A1—1 to 4 inches; gravelly silt loam

A2—4 to 10 inches; gravelly silt loam

A3—10 to 24 inches; very cobbly silt loam

Bt1—24 to 30 inches; very gravelly silt loam

Bt2—30 to 39 inches; extremely gravelly clay loam

Bt3—39 to 63 inches; extremely gravelly silty clay loam

### *Dissimilar Minor Components*

- Wet soils—5 percent of the map unit
- Vitale soils on shoulders—5 percent of the map unit
- Foxol soils on the summits of ridges and on shoulders—5 percent of the map unit
- Camelback soils on concave, east-facing slopes—5 percent of the map unit
- Hades soils on concave, east-facing slopes—3 percent of the map unit
- Rock outcrop—2 percent of the map unit

### *Major Use*

Rangeland

## **20—Bergquist-Vitale complex, 15 to 60 percent slopes**

### *Map Unit Setting*

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,100 to 5,900 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 60 to 90 days

### *Map Unit Composition*

Bergquist and similar soils—55 percent

Vitale and similar soils—25 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Bergquist Soil***

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* Southeast  
*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 15 to 60 percent  
*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 3.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e  
*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

#### **Typical profile**

A—0 to 5 inches; very gravelly loam  
Bw—5 to 12 inches; very gravelly loam  
C—12 to 54 inches; extremely gravelly sandy loam  
R—54 to 64 inches; unweathered bedrock

### ***Characteristics of the Vitale Soil***

#### **Setting**

*Landform:* Mountain slopes  
*Geomorphic position (two-dimensional):* Backslopes and summits  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southeast  
*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 15 to 60 percent  
*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6s  
*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

**Typical profile**

- A1—0 to 1 inch; extremely stony loam
- A2—1 to 15 inches; very cobbly loam
- Bt—15 to 26 inches; extremely cobbly clay loam
- R—26 to 36 inches; unweathered bedrock

***Dissimilar Minor Components***

- Wet soils—5 percent of the map unit
- Soils that have slopes of less than 15 percent or more than 60 percent—5 percent of the map unit
- Rock outcrop—5 percent of the map unit
- Foxol soils on the summits of ridges—3 percent of the map unit
- Softback soils on north-facing, concave slopes—2 percent of the map unit

***Major Use***

Rangeland

**21—Bothwell silt loam, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Alluvial plains

*Major land resource area (MLRA):* 13

*Elevation:* 5,100 to 5,600 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Bothwell and similar soils—80 percent

Dissimilar minor components—20 percent

***Characteristics of the Bothwell Soil***

**Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium and loess

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

Ap—0 to 6 inches; silt loam  
Bt1—6 to 25 inches; silt loam  
Bt2—25 to 45 inches; silty clay loam  
BC—45 to 60 inches; silt loam

***Dissimilar Minor Components***

- Manila soils on linear, north- and east-facing slopes—10 percent of the map unit
- Lanoak soils on concave slopes—10 percent of the map unit

***Major Uses***

Nonirrigated cropland and hayland

**22—Bothwell silt loam, 12 to 30 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 5,600 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Bothwell and similar soils—80 percent

Dissimilar minor components—20 percent

***Characteristics of the Bothwell Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium and loess

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

**Typical profile**

Ap—0 to 6 inches; silt loam  
Bt1—6 to 25 inches; silt loam  
Bt2—25 to 45 inches; silty clay loam

BC—45 to 60 inches; silt loam

***Dissimilar Minor Components***

- Manila soils on linear, north- and east-facing slopes—10 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit
- Kabear soils on linear slopes—5 percent of the map unit

***Major Uses***

Nonirrigated cropland and hayland

**23—Bothwell-Hades-Justesen complex, 6 to 25 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 60 to 90 days

***Map Unit Composition***

Bothwell and similar soils—35 percent

Hades and similar soils—30 percent

Justesen and similar soils—20 percent

Dissimilar minor components—15 percent

***Characteristics of the Bothwell Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

**Properties and qualities**

*Parent material:* Silty alluvium and loess

*Slope:* 6 to 25 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 6 inches; silt loam

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Bt1—6 to 25 inches; silt loam  
Bt2—25 to 45 inches; silty clay loam  
BC—45 to 60 inches; silt loam

### ***Characteristics of the Hades Soil***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 6 to 25 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

#### **Typical profile**

Ap—0 to 5 inches; silt loam  
Bt—5 to 60 inches; gravelly silty clay loam

### ***Characteristics of the Justesen Soil***

#### **Setting**

*Landform:* Hillslopes  
*Geomorphic position (two-dimensional):* Backslopes and summits  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 6 to 25 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 11.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e



*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 6 inches; silt loam  
Bt—6 to 37 inches; silty clay loam  
Bk—37 to 60 inches; silt loam

***Dissimilar Minor Components***

- Hondoho soils on convex slopes and on ridges—10 percent of the map unit
- Yeates Hollow soils on convex, south-facing slopes—2 percent of the map unit
- Huffman soils on concave, north- and east-facing slopes—2 percent of the map unit
- Vitale soils on footslopes—1 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**24—Bothwell-Thatcher complex, 4 to 8 percent slopes**

***Map Unit Setting***

*General landscape:* Hills  
*Major land resource area (MLRA):* 28A  
*Elevation:* 5,200 to 5,600 feet  
*Mean annual precipitation:* 15 to 20 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Bothwell and similar soils—40 percent  
Thatcher and similar soils—35 percent  
Dissimilar minor components—25 percent

***Characteristics of the Bothwell Soil***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium and loess  
*Slope:* 4 to 8 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

Ap—0 to 6 inches; silt loam  
Bt1—6 to 25 inches; silt loam  
Bt2—25 to 45 inches; silty clay loam  
BC—45 to 60 inches; silt loam

***Characteristics of the Thatcher Soil***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium and lacustrine deposits  
*Slope:* 4 to 8 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 9.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

**Typical profile**

Ap—0 to 8 inches; loam  
Bt—8 to 21 inches; silty clay loam  
Bk—21 to 60 inches; silt loam

***Dissimilar Minor Components***

- Soils that are moderately deep to a cemented layer—10 percent of the map unit
- Vitale soils on north-facing slopes—5 percent of the map unit
- Harroun soils on convex, south-facing slopes—5 percent of the map unit
- Cedarhill soils on south-facing slopes and shoulders—5 percent of the map unit

***Major Use***

Nonirrigated cropland (fig. 11)

**25—Brifox-Huffman complex, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 13  
*Elevation:* 4,900 to 5,500 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 42 to 44 degrees F  
*Frost-free period:* 85 to 100 days



Figure 11.—Constructed terraces in an area of Bothwell-Thatcher complex, 4 to 8 percent slopes.

### ***Map Unit Composition***

Brifox and similar soils—40 percent

Huffman and similar soils—35 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Brifox Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:*

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

#### **Typical profile**

Ap—0 to 7 inches; silty clay

Bss—7 to 18 inches; silty clay  
Bkss—18 to 60 inches; silty clay

### ***Characteristics of the Huffman Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 4 to 12 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

#### **Typical profile**

Ap—0 to 7 inches; silt loam  
Bw—7 to 28 inches; silt loam  
Bk—28 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Soils that are calcareous throughout—10 percent of the map unit
- Broadhead soils on concave slopes—10 percent of the map unit
- Ricrest soils in depressions—3 percent of the map unit
- Niter soils on linear or concave slopes—2 percent of the map unit

### ***Major Uses***

Nonirrigated cropland, hayland, and pasture

## **26—Brifox-Huffman complex, 12 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 13  
*Elevation:* 4,900 to 5,500 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 42 to 44 degrees F  
*Frost-free period:* 85 to 100 days

### ***Map Unit Composition***

Brifox and similar soils—40 percent  
Huffman and similar soils—35 percent  
Dissimilar minor components—25 percent

### ***Characteristics of the Brifox Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:*  
*Slope:* 12 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

#### **Typical profile**

Ap—0 to 7 inches; silty clay  
Bss—7 to 18 inches; silty clay  
Bkss—18 to 60 inches; silty clay

### ***Characteristics of the Huffman Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 12 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bw—7 to 28 inches; silt loam

Bk—28 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Broadhead soils on concave slopes—10 percent of the map unit
- Soils that are calcareous throughout—10 percent of the map unit
- Ricrest soils in depressions—3 percent of the map unit
- Niter soils on linear or concave slopes—2 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, pasture, and rangeland

**27—Brifox-Niter complex, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,400 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Brifox and similar soils—55 percent

Niter and similar soils—25 percent

Dissimilar minor components—20 percent

***Characteristics of the Brifox Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 4e

**Typical profile**

Ap—0 to 7 inches; silty clay

Bss—7 to 18 inches; silty clay

Bkss—18 to 60 inches; silty clay

### ***Characteristics of the Niter Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 10.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 4e

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Bss—8 to 19 inches; silty clay loam

Bkss—19 to 60 inches; silty clay

### ***Dissimilar Minor Components***

- Lanoak soils on concave slopes—10 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—5 percent of the map unit
- Iphil soils on convex slopes—5 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland and hayland

## **28—Brifox-Niter complex, 12 to 25 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,400 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 80 to 100 days

### ***Map Unit Composition***

Brifox and similar soils—65 percent

Niter and similar soils—20 percent

Dissimilar minor components—15 percent



### ***Characteristics of the Brifox Soil***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Northwest  
*Range in aspect:* West to north (clockwise)

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 12 to 25 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Land capability subclass (irrigated):* 6e

#### **Typical profile**

Ap—0 to 7 inches; silty clay  
Bss—7 to 18 inches; silty clay  
Bkss—18 to 60 inches; silty clay

### ***Characteristics of the Niter Soil***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Northwest  
*Range in aspect:* West to north (clockwise)

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 12 to 25 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 10.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Land capability subclass (irrigated):* 6e

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Bss—8 to 19 inches; silty clay loam

Bkss—19 to 60 inches; silty clay

***Dissimilar Minor Components***

- Soils that are calcareous throughout—5 percent of the map unit
- Lphil soils on concave, north-facing slopes—5 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 25 percent—3 percent of the map unit
- Soils that are on concave slopes and have a thick dark surface layer—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland and hayland

**29—Brifox-Niter complex, 25 to 35 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,400 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Brifox and similar soils—55 percent

Niter and similar soils—25 percent

Dissimilar minor components—20 percent

***Characteristics of the Brifox Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 25 to 35 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Land capability subclass (irrigated):* 6e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 7 inches; silty clay  
Bss—7 to 18 inches; silty clay  
Bkss—18 to 60 inches; silty clay

***Characteristics of the Niter Soil***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* East  
*Range in aspect:* North to south (clockwise)

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 25 to 35 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 10.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e  
*Land capability subclass (irrigated):* 6e  
*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 8 inches; silty clay loam  
Bss—8 to 19 inches; silty clay loam  
Bkss—19 to 60 inches; silty clay

***Dissimilar Minor Components***

- Soils that have slopes of less than 25 percent or more than 35 percent—10 percent of the map unit
- Iphil soils on convex or linear slopes—10 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and rangeland

**30—Broadhead-Hades-Yago complex, 4 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 6,400 to 6,700 feet  
*Mean annual precipitation:* 18 to 22 inches  
*Mean annual air temperature:* 41 to 44 degrees F  
*Frost-free period:* 60 to 80 days

### **Map Unit Composition**

Broadhead and similar soils—30 percent  
Hades and similar soils—25 percent  
Yago and similar soils—25 percent  
Dissimilar minor components—20 percent

### **Characteristics of the Broadhead Soil**

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* Southeast to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium  
*Slope:* 4 to 20 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam  
Bt1—7 to 10 inches; silty clay loam  
Bt2—10 to 60 inches; silty clay loam

### **Characteristics of the Hades Soil**

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* Southeast to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 4 to 20 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

***Characteristics of the Yago Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to west (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 4 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 6.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

**Typical profile**

A—0 to 10 inches; extremely stony silty clay loam

Bt—10 to 45 inches; extremely stony clay loam

Bk—45 to 60 inches; extremely stony silty clay loam

***Dissimilar Minor Components***

- Wet soils—5 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 20 percent—5 percent of the map unit
- Camelback soils on convex slopes—5 percent of the map unit
- Sedgway soils on linear slopes—3 percent of the map unit
- Toponce soils on north-facing slopes—2 percent of the map unit

***Major Use***

Rangeland

**31—Broadhead-Yago complex, 12 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,760 to 6,040 feet

## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 18 to 22 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 60 to 80 days

### **Map Unit Composition**

Broadhead and similar soils—40 percent

Yago and similar soils—35 percent

Dissimilar minor components—25 percent

### **Characteristics of the Broadhead Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* East to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 10 inches; silty clay loam

Bt2—10 to 60 inches; silty clay loam

### **Characteristics of the Yago Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 6.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

**Typical profile**

A—0 to 10 inches; extremely stony silty clay loam

Bt—10 to 45 inches; extremely stony clay loam

Bk—45 to 60 inches; extremely stony silty clay loam

***Dissimilar Minor Components***

- Soils that have a high shrink-swell potential in the surface layer—5 percent of the map unit
- Hades soils on concave, north- and east-facing slopes—5 percent of the map unit
- Soils underlain by ashy tuff—5 percent of the map unit
- Camelback soils on convex, north- and east-facing slopes—5 percent of the map unit
- Toponce soils on north-facing slopes—3 percent of the map unit
- Bancroft soils on concave slopes—2 percent of the map unit

***Major Use***

Rangeland

**32—Camelback-Lonigan complex, 20 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 6,000 feet

*Mean annual precipitation:* 16 to 17 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 70 to 95 days

***Map Unit Composition***

Camelback and similar soils—55 percent

Lonigan and similar soils—25 percent

Dissimilar minor components—20 percent

***Characteristics of the Camelback Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Concave

*Representative aspect:* Northwest

*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high



## Soil Survey of Franklin County Area, Idaho

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 7.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

### **Typical profile**

A1—0 to 3 inches; very gravelly silt loam

A2—3 to 14 inches; very gravelly silt loam

Bt1—14 to 22 inches; very gravelly silt loam

Bt2—22 to 32 inches; very gravelly silty clay loam

Bt3—32 to 50 inches; very gravelly silt loam

BC—50 to 61 inches; very gravelly loam

### ***Characteristics of the Lonigan Soil***

### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Northwest

*Range in aspect:* Southwest to northeast (clockwise)

### **Properties and qualities**

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 20 to 50 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

### **Typical profile**

A—0 to 8 inches; gravelly silt loam

Bw—8 to 11 inches; very gravelly silt loam

Bk—11 to 24 inches; very gravelly silt loam

Cr—24 to 34 inches; weathered bedrock

### ***Dissimilar Minor Components***

- Wormcreek soils on concave slopes—5 percent of the map unit
- Staberg soils on linear or convex slopes—5 percent of the map unit
- Nyman soils on concave, north-facing slopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—3 percent of the map unit

- Rock outcrop—2 percent of the map unit

***Major Use***

Rangeland

**33—Camelback-Valmar-Hades complex, 20 to 30 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 5,500 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 60 to 90 days

***Map Unit Composition***

Camelback and similar soils—40 percent

Valmar and similar soils—20 percent

Hades and similar soils—20 percent

Dissimilar minor components—20 percent

***Characteristics of the Camelback Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* Northeast to east (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 20 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 7.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

A1—0 to 3 inches; very gravelly silt loam

A2—3 to 14 inches; very gravelly silt loam

Bt1—14 to 22 inches; very gravelly silt loam

Bt2—22 to 32 inches; very gravelly silty clay loam

Bt3—32 to 50 inches; very gravelly silt loam

BC—50 to 61 inches; very gravelly loam

### ***Characteristics of the Valmar Soil***

#### **Setting**

*Landform:* Mountain slopes  
*Geomorphic position (two-dimensional):* Shoulders and summits  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* East  
*Range in aspect:* Northeast to east (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 20 to 30 percent  
*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 2.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

#### **Typical profile**

A—0 to 9 inches; very cobbly silt loam  
Bt—9 to 14 inches; very cobbly silt loam  
Bw—14 to 24 inches; extremely stony silt loam  
R—24 to 34 inches; unweathered bedrock

### ***Characteristics of the Hades Soil***

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* East  
*Range in aspect:* Northeast to east (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 20 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

***Dissimilar Minor Components***

- Moonlight soils on concave, north- and east-facing slopes—10 percent of the map unit
- Huffman soils on toeslopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 30 percent—3 percent of the map unit
- Rock outcrop—2 percent of the map unit

***Major Use***

Rangeland

**34—Cedarhill very gravelly silt loam, 12 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,200 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 100 days

***Map Unit Composition***

Cedarhill and similar soils—90 percent

Dissimilar minor components—10 percent

***Characteristics of the Cedarhill Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to west (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Gravelly Loam 12-16 Artr/pssp6 (R028AY008ID)

**Typical profile**

Ap—0 to 8 inches; very gravelly silt loam  
ABk—8 to 17 inches; very gravelly loam  
Bk—17 to 60 inches; very gravelly silt loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 12 percent or more than 20 percent—5 percent of the map unit
- Wursten soils that have slopes of less than 12 percent—3 percent of the map unit
- Iphil soils on convex slopes—2 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, and rangeland

**35—Cedarhill-Hades-Ricrest complex, 20 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,700 to 5,900 feet  
*Mean annual precipitation:* 15 to 20 inches  
*Mean annual air temperature:* 41 to 43 degrees F  
*Frost-free period:* 70 to 100 days

***Map Unit Composition***

Cedarhill and similar soils—40 percent  
Hades and similar soils—25 percent  
Ricrest and similar soils—20 percent  
Dissimilar minor components—15 percent

***Characteristics of the Cedarhill Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* Southeast to west (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 20 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 3.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

## Soil Survey of Franklin County Area, Idaho

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

### Typical profile

Ap—0 to 8 inches; very gravelly silt loam

ABk—8 to 17 inches; very gravelly loam

Bk—17 to 60 inches; very gravelly silt loam

### ***Characteristics of the Hades Soil***

#### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to west (clockwise)

#### Properties and qualities

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

#### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

### ***Characteristics of the Ricrest Soil***

#### Setting

*Landform:* Mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Representative aspect:* Southwest

*Range in aspect:* Southeast to west (clockwise)

#### Properties and qualities

*Parent material:* Mixed alluvium and colluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 9.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 7e*

*Ecological site: Steep Slope 16-22 Artv/pssp6 (R013XY003ID)*

**Typical profile**

Ap—0 to 6 inches; gravelly silt loam

Bw—6 to 20 inches; gravelly silt loam

Bk—20 to 60 inches; gravelly silt loam

***Dissimilar Minor Components***

- Moonlight soils on concave, north- and east-facing slopes—5 percent of the map unit
- Manila soils on concave, south- and west-facing slopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—2 percent of the map unit
- Rock outcrop on shoulders—1 percent of the map unit
- Ridgecrest soils on convex, south-facing slopes—1 percent of the map unit
- Huffman soils on convex slopes—1 percent of the map unit

***Major Use***

Rangeland

**36—Cedarhill-Hondoho-Ridgecrest complex, 20 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,300 to 6,300 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 80 days

***Map Unit Composition***

Cedarhill and similar soils—35 percent

Hondoho and similar soils—30 percent

Ridgecrest and similar soils—20 percent

Dissimilar minor components—15 percent

***Characteristics of the Cedarhill Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None



## Soil Survey of Franklin County Area, Idaho

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.7 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

### **Typical profile**

Ap—0 to 8 inches; very gravelly silt loam

ABk—8 to 17 inches; very gravelly loam

Bk—17 to 60 inches; very gravelly silt loam

### ***Characteristics of the Hondoho Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

### **Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

### ***Characteristics of the Ridgecrest Soil***

#### **Setting**

*Landform:* Mountain slopes

*Geomorphic position (two-dimensional):* Summits

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

#### **Properties and qualities**

*Parent material:* Alluvium and colluvium derived from limestone

*Slope:* 20 to 50 percent

## Soil Survey of Franklin County Area, Idaho

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 2.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Steep Stony 12-16 Artv/pssp6 (R013XY026ID)

### **Typical profile**

A—0 to 14 inches; extremely stony silt loam

Bk—14 to 27 inches; extremely stony silt loam

R—27 to 37 inches; unweathered bedrock

### ***Dissimilar Minor Components***

- Rock outcrop on shoulders—5 percent of the map unit
- Huffman soils on footslopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—2 percent of the map unit
- Manila soils on concave slopes—2 percent of the map unit
- Soils that are shallow to bedrock—1 percent of the map unit

### ***Major Use***

Rangeland

## **37—Chesbrook-Bear Lake complex, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 85 to 95 days

### ***Map Unit Composition***

Chesbrook and similar soils—60 percent

Bear Lake and similar soils—20 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Chesbrook Soil***

#### **Setting**

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium

## Soil Survey of Franklin County Area, Idaho

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 6 to 18 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 2.0

*Available water capacity (entire profile):* Very high (about 12.9 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R013XY038ID)

### **Typical profile**

Oi—0 to 2 inches; slightly decomposed plant material

Akg—2 to 20 inches; silty clay loam

Bkg—20 to 48 inches; silty clay loam

Ckg—48 to 62 inches; silty clay loam

### ***Characteristics of the Bear Lake Soil***

### **Setting**

*Landform:* Flood plains

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Occasional

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 18 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 8.6 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R013XY038ID)

### **Typical profile**

A—0 to 11 inches; silty clay loam

Bkg1—11 to 20 inches; silty clay loam

Bkg2—20 to 26 inches; silty clay loam

Bkg3—26 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Moderately well drained soils in slightly elevated areas—10 percent of the map unit
- Lago soils in slightly convex, elevated areas—10 percent of the map unit

### ***Major Uses***

Hayland, pasture, and rangeland

## **38—Cloudless-Hades complex, 4 to 12 percent slopes**

### ***Map Unit Setting***

*General landscape:* Alluvial plains

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,600 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 85 to 95 days

### ***Map Unit Composition***

Cloudless and similar soils—50 percent

Hades and similar soils—40 percent

Dissimilar minor components—10 percent

### ***Characteristics of the Cloudless Soil***

#### **Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 11.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

#### **Typical profile**

Ap—0 to 6 inches; silt loam

Bt1—6 to 15 inches; silt loam

Bt2—15 to 21 inches; silty clay loam

Bt3—21 to 60 inches; gravelly silty clay loam

### ***Characteristics of the Hades Soil***

#### **Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

**Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

***Dissimilar Minor Components***

- Howcan soils on linear or convex slopes—5 percent of the map unit
- Justesen soils on linear slopes—3 percent of the map unit
- Ant Flat soils on concave slopes—2 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, and building site development

**39—Cloudless-Hades-Howcan complex, 12 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Alluvial plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,800 to 5,800 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 80 to 90 days

***Map Unit Composition***

Cloudless and similar soils—35 percent

Hades and similar soils—30 percent

Howcan and similar soils—20 percent

Dissimilar minor components—15 percent

***Characteristics of the Cloudless Soil***

**Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 11.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 12-16 Artrt/pssp6 (R013XY032ID)

**Typical profile**

Ap—0 to 6 inches; silt loam

Bt1—6 to 15 inches; silt loam

Bt2—15 to 21 inches; silty clay loam

Bt3—21 to 60 inches; gravelly silty clay loam

***Characteristics of the Hades Soil***

**Setting**

*Landform:* Fan remnants

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 12-16 Artrt/pssp6 (R013XY032ID)

**Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

***Characteristics of the Howcan Soil***

**Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.5 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 12-16 Artrt/pssp6 (R013XY032ID)

**Typical profile**

A—0 to 8 inches; very gravelly loam

Bt1—8 to 25 inches; very gravelly loam

Bt2—25 to 36 inches; very cobbly loam

BC—36 to 60 inches; very stony loam

***Dissimilar Minor Components***

- Justesen soils on linear slopes—10 percent of the map unit
- Ant Flat soils on concave slopes—5 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, and rangeland

**40—Copenhagen-Lonigan-Manila association, 12 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 6,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 70 to 95 days

***Map Unit Composition***

Copenhagen and similar soils—35 percent

Lonigan and similar soils—30 percent

Manila and similar soils—20 percent

Dissimilar minor components—15 percent

***Characteristics of the Copenhagen Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex



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*Across-slope shape:* Convex

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 12 to 50 percent

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.2 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### Typical profile

A—0 to 7 inches; very channery loam

Bw—7 to 13 inches; very channery loam

R—13 to 23 inches; unweathered bedrock

## ***Characteristics of the Lonigan Soil***

### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 12 to 50 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### Typical profile

A—0 to 8 inches; gravelly silt loam

Bw—8 to 11 inches; very gravelly silt loam

Bk—11 to 24 inches; very gravelly silt loam

Cr—24 to 34 inches; weathered bedrock

### ***Characteristics of the Manila Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### ***Dissimilar Minor Components***

- Bergquist soils on convex slopes—4 percent of the map unit
- Soils that have more than 35 percent rock fragments—3 percent of the map unit
- Rock outcrop on shoulders—3 percent of the map unit
- Parkay soils on northeast-facing slopes—3 percent of the map unit
- Wet soils—2 percent of the map unit

### ***Major Use***

Rangeland

## **41—Delish-Cachecan-Stinkcreek complex, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,900 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 100 to 130 days

### **Map Unit Composition**

Delish and similar soils—40 percent  
Cachecan and similar soils—25 percent  
Stinkcreek and similar soils—15 percent  
Dissimilar minor components—20 percent

### **Characteristics of the Delish Soil**

#### **Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 18 to 30 inches  
*Salinity (maximum):* Slightly saline (about 5.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3w  
*Land capability subclass (irrigated):* 3w  
*Ecological site:* Semiwet Meadow (R028AY029ID)

#### **Typical profile**

A—0 to 3 inches; fine sandy loam  
Bw—3 to 7 inches; fine sandy loam  
C—7 to 61 inches; silt loam

### **Characteristics of the Cachecan Soil**

#### **Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 30 to 42 inches

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*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 9.0

*Available water capacity (entire profile):* High (about 11.8 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3w

*Land capability subclass (irrigated):* 3w

*Ecological site:* Semiwet Meadow (R028AY029ID)

### Typical profile

A—0 to 5 inches; silt loam

Bw—5 to 20 inches; silt loam

Bg—20 to 37 inches; silty clay loam

Cg—37 to 61 inches; silty clay loam

### ***Characteristics of the Stinkcreek Soil***

### Setting

*Landform:* Stream terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 18 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 22.0

*Available water capacity (entire profile):* Low (about 5.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R028AY028ID)

### Typical profile

A—0 to 11 inches; silty clay loam

Bk—11 to 21 inches; silty clay loam

2C1—21 to 40 inches; very gravelly loamy sand

2C2—40 to 60 inches; extremely gravelly sand

### ***Dissimilar Minor Components***

- Sandy soils on convex slopes—10 percent of the map unit
- Stratified, loamy and sandy soils—5 percent of the map unit
- Airport soils on linear slopes—5 percent of the map unit

### ***Major Uses***

Hayland, pasture, and rangeland

## **42—Downata silt loam, 0 to 1 percent slopes**

### ***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 13

*Elevation:* 4,700 to 4,900 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 90 days

### ***Map Unit Composition***

Downata and similar soils—80 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Downata Soil***

#### **Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Very poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Frequent

*Ponding:* Frequent

*Seasonal high water table (minimum depth):* About 0 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Very high (about 12.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Marsh Scac/tyla (R028AY030ID)

#### **Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

Ag—1 to 12 inches; silt loam

2Bgb—12 to 59 inches; silty clay loam

2Cgb—59 to 63 inches; silt loam

### ***Dissimilar Minor Components***

- Bear Lake soils—10 percent of the map unit
- Soils that have gravel and cobbles throughout—5 percent of the map unit
- Soils that have more than 35 percent clay in the subsoil—5 percent of the map unit

### ***Major Uses***

Pasture and rangeland

## **43—Dranburn-Robin complex, 15 to 45 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains (fig. 12)

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,400 to 7,000 feet

*Mean annual precipitation:* 17 to 22 inches

*Mean annual air temperature:* 37 to 41 degrees F

*Frost-free period:* 50 to 70 days

### ***Map Unit Composition***

Dranburn and similar soils—45 percent

Robin and similar soils—35 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Dranburn Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* West to east (clockwise)



Figure 12.—Dranburn-Robin complex, 15 to 45 percent slopes, in the area of trees in the foreground. Manila-Broadhead complex, 12 to 30 percent slopes, is on the farmed fields to the right. Ireland-Polumar complex, 25 to 55 percent slopes, is to the left, adjoining the Wasatch Range of the Cache National Forest in the background.



**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 15 to 45 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Loamy Mountain Slopes 16-22 Acgl/brca5 (R013XY020ID)

**Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 17 inches; silt loam

AB—17 to 22 inches; silty clay loam

Bt—22 to 48 inches; gravelly silty clay loam

BC—48 to 61 inches; silty clay loam

***Characteristics of the Robin Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* North

*Range in aspect:* West to east (clockwise)

**Properties and qualities**

*Parent material:* Loess

*Slope:* 15 to 45 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)

**Typical profile**

A1—0 to 2 inches; silt loam

A2—2 to 23 inches; silt loam

BA—23 to 27 inches; silt loam

Bt—27 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Parkay soils on concave slopes—5 percent of the map unit



- Wet soils—5 percent of the map unit
- Vitale soils on convex slopes—3 percent of the map unit
- Povey soils on convex slopes—3 percent of the map unit
- Northwater soils on steep, concave slopes—2 percent of the map unit
- Soils that have slopes of less than 15 percent or more than 45 percent—2 percent of the map unit

### ***Major Uses***

Rangeland and building site development

## **44—Enochville silt loam, 0 to 1 percent slopes**

### ***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 13

*Elevation:* 5,760 to 5,900 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 40 to 42 degrees F

*Frost-free period:* 50 to 65 days

### ***Map Unit Composition***

Enochville and similar soils—75 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Enochville Soil***

#### **Setting**

*Landform:* Stream terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Frequent

*Ponding:* None

*Seasonal high water table (minimum depth):* About 12 to 24 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 8.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Ecological site:* Semiwet Meadow (R013XY039ID)

#### **Typical profile**

A—0 to 12 inches; silt loam

Cg—12 to 43 inches; silt loam

2Cg—43 to 60 inches; very gravelly sandy loam

***Dissimilar Minor Components***

- Soils that have a water table at or near the surface—10 percent of the map unit
- Poorly drained soils that have more than 35 percent rock fragments—10 percent of the map unit
- Soils that have slopes of more than 1 percent—2 percent of the map unit
- Holmes soils on terrace risers—2 percent of the map unit
- Poorly drained soils that have a clayey subsoil—1 percent of the map unit

***Major Use***

Rangeland

**45—Foxol-Vitale complex, 20 to 55 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,500 to 7,300 feet

*Mean annual precipitation:* 19 to 25 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 70 days

***Map Unit Composition***

Foxol and similar soils—45 percent

Vitale and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Foxol Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

**Properties and qualities**

*Parent material:* Colluvium and residuum derived from quartzite

*Slope:* 20 to 55 percent

*Depth to a restrictive feature:* 14 to 20 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Shallow Stony 12-16 Arar8/pssp6 (R013XY014ID)

**Typical profile**

A1—0 to 3 inches; very stony loam

A2—3 to 9 inches; very stony loam

Bw—9 to 17 inches; extremely stony loam  
R—17 to 27 inches; unweathered bedrock

***Characteristics of the Vitale Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* Southeast  
*Range in aspect:* Northeast to southwest (clockwise)

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 20 to 55 percent  
*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6s  
*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

**Typical profile**

A1—0 to 1 inch; extremely stony loam  
A2—1 to 15 inches; very cobbly loam  
Bt—15 to 26 inches; extremely cobbly clay loam  
R—26 to 36 inches; unweathered bedrock

***Dissimilar Minor Components***

- Povey soils on concave slopes—10 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 55 percent—5 percent of the map unit
- Rock outcrop on shoulders—5 percent of the map unit
- Dranburn soils on north-facing slopes—5 percent of the map unit

***Major Use***

Rangeland

**46—Hades-Camelback-Hondoho complex, 30 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,000 to 6,300 feet  
*Mean annual precipitation:* 15 to 20 inches  
*Mean annual air temperature:* 40 to 43 degrees F  
*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Hades and similar soils—35 percent  
Camelback and similar soils—20 percent  
Hondoho and similar soils—20 percent  
Dissimilar minor components—25 percent

### **Characteristics of the Hades Soil**

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* Southeast  
*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

#### **Typical profile**

Ap—0 to 5 inches; silt loam  
Bt—5 to 60 inches; gravelly silty clay loam

### **Characteristics of the Hondoho Soil**

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* Southeast  
*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic

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*Available water capacity (entire profile):* Moderate (about 6.7 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

### **Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

### ***Characteristics of the Camelback Soil***

### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 7.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### **Typical profile**

A1—0 to 3 inches; very gravelly silt loam

A2—3 to 14 inches; very gravelly silt loam

Bt1—14 to 22 inches; very gravelly silt loam

Bt2—22 to 32 inches; very gravelly silty clay loam

Bt3—32 to 50 inches; very gravelly silt loam

BC—50 to 61 inches; very gravelly loam

### ***Dissimilar Minor Components***

- Manila soils on linear or convex slopes—5 percent of the map unit
- Broadhead soils on concave slopes—5 percent of the map unit
- Cedarhill soils on convex, south-facing slopes—5 percent of the map unit
- Ridgecrest soils on convex, south- and west-facing slopes—5 percent of the map unit
- Rock outcrop on shoulders—3 percent of the map unit
- Soils that are somewhat poorly drained—2 percent of the map unit

### ***Major Use***

Rangeland

## **47—Hades-Lanoak-Camelback complex, 20 to 50 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills and mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,900 to 6,000 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 90 days

### ***Map Unit Composition***

Hades and similar soils—25 percent

Lanoak and similar soils—25 percent

Camelback and similar soils—25 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Hades Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* North

*Range in aspect:* Northwest to northeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 20 to 40 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

#### **Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

### ***Characteristics of the Lanoak Soil***

#### **Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

## Soil Survey of Franklin County Area, Idaho

*Range in aspect:* Northwest to northeast (clockwise)

### Properties and qualities

*Parent material:* Silty alluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A—0 to 21 inches; silt loam

Bt—21 to 50 inches; silt loam

Bk—50 to 60 inches; silt loam

## Characteristics of the Camelback Soil

### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* Northwest to northeast (clockwise)

### Properties and qualities

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 7.2 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A1—0 to 3 inches; very gravelly silt loam

A2—3 to 14 inches; very gravelly silt loam

Bt1—14 to 22 inches; very gravelly silt loam

Bt2—22 to 32 inches; very gravelly silty clay loam

Bt3—32 to 50 inches; very gravelly silt loam

BC—50 to 61 inches; very gravelly loam



***Dissimilar Minor Components***

- Soils that have a mean annual soil temperature of less than 43 degrees F—5 percent of the map unit
- Soils that are moderately well drained or somewhat poorly drained—5 percent of the map unit
- Rock outcrop on shoulders—5 percent of the map unit
- Cedarhill soils on convex, south- and west-facing slopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—3 percent of the map unit
- Valmar soils on convex slopes—2 percent of the map unit

***Major Use***

Rangeland

**48—Haploxerolls-Xerorthents complex, 20 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,500 to 4,700 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 120 days

***Map Unit Composition***

Haploxerolls and similar soils—45 percent

Xerorthents and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Haploxerolls***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 20 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 3.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6s

## Soil Survey of Franklin County Area, Idaho

*Ecological site:* Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)

### Typical profile

A—0 to 6 inches; silt loam

Bw—6 to 17 inches; gravelly loam

Bk—17 to 60 inches; stratified gravelly loamy sand to very gravelly loam

### **Characteristics of the Xerorthents**

### Setting

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

### Properties and qualities

*Parent material:* Mixed colluvium and residuum

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 10 to 60 inches to paralithic bedrock

*Drainage class:* Somewhat excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 2.0

*Available water capacity (entire profile):* Very low (about 1.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

### Typical profile

A—0 to 3 inches; gravelly loam

C—3 to 11 inches; extremely channery loam

Cr—11 to 21 inches; weathered bedrock

### **Dissimilar Minor Components**

- Soils that have more than 35 percent clay in the subsoil—10 percent of the map unit
- Soils that are somewhat poorly drained or poorly drained—5 percent of the map unit
- Sterling soils on convex, south-facing slopes—3 percent of the map unit
- Layton soils on concave slopes—3 percent of the map unit
- Vitale soils on shoulders—2 percent of the map unit
- Preston soils on linear or convex slopes—2 percent of the map unit

### **Major Use**

Rangeland

## **49—Hendricks silt loam, 6 to 10 percent slopes**

### **Map Unit Setting**

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

## Soil Survey of Franklin County Area, Idaho

*Elevation:* 5,100 to 5,200 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 44 to 45 degrees F

*Frost-free period:* 120 to 125 days

### **Map Unit Composition**

Hendricks and similar soils—90 percent

Dissimilar minor components—10 percent

### **Characteristics of the Hendricks Soil**

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 6 to 10 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 11.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 5 inches; silt loam

Bw—5 to 15 inches; silt loam

Bt—15 to 66 inches; silty clay loam

### **Dissimilar Minor Components**

- Soils that have slopes of less than 6 percent or more than 10 percent—5 percent of the map unit
- Sterling soils—5 percent of the map unit

### **Major Uses**

Irrigated cropland and hayland

## **50—Holmes gravelly silt loam, 0 to 2 percent slopes**

### **Map Unit Setting**

*General landscape:* Valleys

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 85 to 95 days

### **Map Unit Composition**

Holmes and similar soils—90 percent

Dissimilar minor components—10 percent

### **Characteristics of the Holmes Soil**

#### **Setting**

*Landform:* Stream terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 4.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 3c

*Ecological site:* Riverbottom (R028AY020ID)

#### **Typical profile**

A—0 to 4 inches; gravelly silt loam

Bt—4 to 20 inches; very gravelly loam

2Cq—20 to 61 inches; extremely gravelly coarse sand

### **Dissimilar Minor Components**

- Soils that have a seasonal high water table at a depth of 24 to 40 inches—5 percent of the map unit
- Soils that have slopes of more than 2 percent—3 percent of the map unit
- Soils that have more clay and less than 35 percent rock fragments—2 percent of the map unit

### **Major Uses**

Hayland, pasture, and rangeland

## **51—Hondee gravelly loam, 1 to 4 percent slopes**

### **Map Unit Setting**

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,800 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 125 days

### **Map Unit Composition**

Hondee and similar soils—85 percent

Dissimilar minor components—15 percent

### **Characteristics of the Hondee Soil**

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 1 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 4.9 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 2c

*Land capability subclass (irrigated):* 2s

*Ecological site:* Loamy 11-13 Artr/pssp6 (R028AY024ID)

#### **Typical profile**

Ap—0 to 6 inches; gravelly loam

AB—6 to 16 inches; gravelly loam

Bk1—16 to 19 inches; very gravelly loam

Bk2—19 to 39 inches; very gravelly sandy loam

2Bk3—39 to 60 inches; very gravelly loamy coarse sand

### **Dissimilar Minor Components**

- Soils on linear or slightly concave slopes—10 percent of the map unit
- Soils that have a seasonal high water table at a depth of 40 to 60 inches—5 percent of the map unit

### **Major Uses**

Irrigated and nonirrigated cropland, hayland, pasture, and rangeland

## **52—Hondee gravelly loam, 4 to 12 percent slopes**

### **Map Unit Setting**

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,800 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 125 days

### **Map Unit Composition**

Hondee and similar soils—75 percent

Dissimilar minor components—25 percent

### **Characteristics of the Hondee Soil**

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 4.9 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 11-13 Artrt/pssp6 (R028AY024ID)

#### **Typical profile**

Ap—0 to 6 inches; gravelly loam

AB—6 to 16 inches; gravelly loam

Bk1—16 to 19 inches; very gravelly loam

Bk2—19 to 39 inches; very gravelly sandy loam

2Bk3—39 to 60 inches; very gravelly loamy coarse sand

### **Dissimilar Minor Components**

- Soils that have less than 35 percent rock fragments—10 percent of the map unit
- Sterling soils on convex slopes—5 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—3 percent of the map unit
- Collinston soils on the upper slopes—3 percent of the map unit
- Winwell soils near toeslopes—2 percent of the map unit
- Vitale soils on convex slopes—2 percent of the map unit

### **Major Uses**

Nonirrigated cropland and rangeland

## **53—Hondoho-Hades complex, 4 to 12 percent slopes**

### **Map Unit Setting**

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

## Soil Survey of Franklin County Area, Idaho

*Elevation:* 4,800 to 5,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Hondoho and similar soils—50 percent

Hades and similar soils—30 percent

Dissimilar minor components—20 percent

### **Characteristics of the Hondoho Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

#### **Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

### **Characteristics of the Hades Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None



*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

***Dissimilar Minor Components***

- Oxford soils on convex slopes—5 percent of the map unit
- Cedarhill soils on convex, south- and west-facing slopes—5 percent of the map unit
- Camelback soils on convex slopes—5 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—3 percent of the map unit
- Bancroft soils on concave slopes—2 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, and rangeland

**54—Hondoho-Ricrest complex, 4 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,600 to 5,600 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 40 to 44 degrees F

*Frost-free period:* 70 to 100 days

***Map Unit Composition***

Hondoho and similar soils—50 percent

Ricrest and similar soils—40 percent

Dissimilar minor components—10 percent

***Characteristics of the Hondoho Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

## Soil Survey of Franklin County Area, Idaho

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 4e

*Ecological site:* Loamy 12-16 Artrt/pssp6 (R013XY032ID)

### **Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

### ***Characteristics of the Ricrest Soil***

### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Southwest

*Range in aspect:* All aspects

### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 9.9 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

*Ecological site:* Loamy 12-16 Artrt/pssp6 (R013XY032ID)

### **Typical profile**

Ap—0 to 6 inches; gravelly silt loam

Bw—6 to 20 inches; gravelly silt loam

Bk—20 to 60 inches; gravelly silt loam

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 4 percent or more than 20 percent—10 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and rangeland

## **55—Hondoho-Sprollo-Hades complex, 12 to 50 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 6,500 feet

*Mean annual precipitation:* 15 to 16 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 90 days

### ***Map Unit Composition***

Hondoho and similar soils—35 percent

Sprollo and similar soils—30 percent

Hades and similar soils—20 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Hondoho Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

#### **Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

### ***Characteristics of the Sprollo Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

**Properties and qualities**

*Parent material:* Alluvium and residuum derived from limestone

*Slope:* 20 to 50 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

**Typical profile**

A—0 to 3 inches; gravelly silt loam

Bw—3 to 14 inches; gravelly silt loam

Bk—14 to 39 inches; very cobbly silt loam

R—39 to 49 inches; unweathered bedrock

***Characteristics of the Hades Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 12 to 25 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

***Dissimilar Minor Components***

- Rock outcrop on shoulders—5 percent of the map unit
- Lizdale soils on convex slopes—5 percent of the map unit
- Hymas soils on convex slopes—5 percent of the map unit

**Major Use**

Rangeland

**56—Hondoho-Vitale complex, 20 to 50 percent slopes**

**Map Unit Setting**

*General landscape:* Mountains

*Major land resource area (MLRA):* 28A

*Elevation:* 5,600 to 6,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 40 to 44 degrees F

*Frost-free period:* 60 to 95 days

**Map Unit Composition**

Hondoho and similar soils—45 percent

Vitale and similar soils—30 percent

Dissimilar minor components—25 percent

**Characteristics of the Hondoho Soil**

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

**Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

**Characteristics of the Vitale Soil**

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum

*Slope:* 20 to 50 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6s

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

A1—0 to 1 inch; extremely stony loam

A2—1 to 15 inches; very cobbly loam

Bt—15 to 26 inches; extremely cobbly clay loam

R—26 to 36 inches; unweathered bedrock

***Dissimilar Minor Components***

- Hades soils on concave slopes—10 percent of the map unit
- Yeates Hollow soils on convex slopes—5 percent of the map unit
- Ricrest soils on concave slopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—3 percent of the map unit
- Ireland soils on convex slopes—2 percent of the map unit

***Major Use***

Rangeland

**57—Huffman silt loam, 0 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 85 to 100 days

***Map Unit Composition***

Huffman and similar soils—80 percent

Dissimilar minor components—20 percent

***Characteristics of the Huffman Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 0 to 4 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

Ap—0 to 7 inches; silt loam  
Bw—7 to 28 inches; silt loam  
Bk—28 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Brifox soils on convex slopes—10 percent of the map unit
- Niter soils on concave slopes—5 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit

***Major Use***

Nonirrigated cropland

**58—Huffman silt loam, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 13  
*Elevation:* 4,900 to 5,500 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 40 to 43 degrees F  
*Frost-free period:* 85 to 100 days

***Map Unit Composition***

Huffman and similar soils—80 percent  
Dissimilar minor components—20 percent

***Characteristics of the Huffman Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects



**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 11.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

Ap—0 to 7 inches; silt loam

Bw—7 to 28 inches; silt loam

Bk—28 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Brifox soils on convex slopes—10 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit
- Niter soils on concave slopes—5 percent of the map unit

***Major Use***

Nonirrigated cropland

**59—Huffman-Dirtyhead complex, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 28A

*Elevation:* 4,900 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 70 to 90 days

***Map Unit Composition***

Huffman and similar soils—45 percent

Dirtyhead and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Huffman Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 4 to 12 percent

## Soil Survey of Franklin County Area, Idaho

*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3e

### Typical profile

Ap—0 to 7 inches; silt loam  
Bw—7 to 28 inches; silt loam  
Bk—28 to 60 inches; silty clay loam

### ***Characteristics of the Dirtyhead Soil***

### Setting

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Representative aspect:* Northeast  
*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Mixed alluvium and residuum  
*Slope:* 4 to 12 percent  
*Depth to a restrictive feature:* 25 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 2.8 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3e

### Typical profile

A—0 to 6 inches; very gravelly loam  
Bk—6 to 38 inches; very gravelly sandy loam  
Cr—38 to 48 inches; weathered bedrock

### ***Dissimilar Minor Components***

- Lanoak soils on convex slopes—10 percent of the map unit
- Harroun soils on concave slopes—10 percent of the map unit
- Ant Flat soils on convex slopes—5 percent of the map unit

### ***Major Use***

Nonirrigated cropland

## **60—Huffman-Harroun-Lanoak complex, 2 to 12 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 28A

*Elevation:* 5,300 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 85 to 100 days

### ***Map Unit Composition***

Huffman and similar soils—35 percent

Harroun and similar soils—30 percent

Lanoak and similar soils—25 percent

Dissimilar minor components—10 percent

### ***Characteristics of the Huffman Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 4 to 8 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bw—7 to 28 inches; silt loam

Bk—28 to 60 inches; silty clay loam

### ***Characteristics of the Harroun Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* Southeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Depth to a restrictive feature:* 10 to 20 inches to a duripan

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Very low (about 1.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

**Typical profile**

A—0 to 7 inches; very gravelly loam

Bk—7 to 15 inches; very gravelly loam

Bkqm—15 to 28 inches; cemented material

C—28 to 60 inches; very gravelly sandy loam

***Characteristics of the Lanoak Soil***

**Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 2 to 6 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

A—0 to 36 inches; silt loam

Bt—36 to 50 inches; silt loam

Bk—50 to 60 inches; silt loam

***Dissimilar Minor Components***

- Soils that are calcareous throughout and have more than 18 percent clay—10 percent of the map unit

**Major Use**

Nonirrigated cropland

**61—Huffman-Wursten complex, 4 to 12 percent slopes**

**Map Unit Setting**

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,900 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 85 to 100 days

**Map Unit Composition**

Huffman and similar soils—45 percent

Wursten and similar soils—35 percent

Dissimilar minor components—20 percent

**Characteristics of the Huffman Soil**

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 11.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 7 inches; silt loam

Bw—7 to 28 inches; silt loam

Bk—28 to 60 inches; silty clay loam

**Characteristics of the Wursten Soil**

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 9.0

*Available water capacity (entire profile):* High (about 9.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 12-16 Artrt/pssp6 (R013XY032ID)

**Typical profile**

A—0 to 5 inches; loam

Bk1—5 to 17 inches; loam

Bk2—17 to 31 inches; loam

Bk3—31 to 60 inches; gravelly loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 4 percent or more than 12 percent—10 percent of the map unit
- Hondoho soils on slightly concave slopes—5 percent of the map unit
- Arbone soils on linear or slightly convex slopes—5 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**62—Iphil-Lonigan complex, 8 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 4,600 to 5,500 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Iphil and similar soils—60 percent

Lonigan and similar soils—20 percent

Dissimilar minor components—20 percent

***Characteristics of the Iphil Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* South

## Soil Survey of Franklin County Area, Idaho

*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Silty alluvium

*Slope:* 8 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 10.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

### Typical profile

Ap—0 to 8 inches; silt loam

AB—8 to 15 inches; silt loam

Bk—15 to 60 inches; silt loam

## Characteristics of the Lonigan Soil

### Setting

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 8 to 20 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

### Typical profile

A—0 to 8 inches; gravelly silt loam

Bw—8 to 11 inches; very gravelly silt loam

Bk—11 to 24 inches; very gravelly silt loam

Cr—24 to 34 inches; weathered bedrock

## Dissimilar Minor Components

- Copenhagen soils on ridges—10 percent of the map unit



- Manila soils on concave slopes—5 percent of the map unit
- Ant Flat soils on linear slopes—3 percent of the map unit
- Downata soils—2 percent of the map unit

**Major Uses**

Nonirrigated cropland, hayland, pasture, and rangeland

**63—Ireland-Polumar complex, 25 to 55 percent slopes**

**Map Unit Setting**

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,500 to 6,400 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 60 to 85 days

**Map Unit Composition**

Ireland and similar soils—50 percent

Polumar and similar soils—25 percent

Dissimilar minor components—25 percent

**Characteristics of the Ireland Soil**

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* West

*Range in aspect:* South to northwest (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 25 to 55 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Very low (about 2.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

A1—0 to 2 inches; very cobbly loam

A2—2 to 7 inches; gravelly loam

Bk1—7 to 14 inches; very gravelly loam

Bk2—14 to 23 inches; extremely cobbly sandy loam

R—23 to 33 inches; unweathered bedrock

### ***Characteristics of the Polumar Soil***

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Representative aspect:* West  
*Range in aspect:* South to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Colluvium and residuum derived from limestone  
*Slope:* 25 to 55 percent  
*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 1.0  
*Available water capacity (entire profile):* Low (about 4.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

#### **Typical profile**

A1—0 to 6 inches; gravelly silt loam  
A2—6 to 11 inches; gravelly silt loam  
A3—11 to 18 inches; very cobbly silt loam  
Bk—18 to 22 inches; very cobbly silt loam  
Bkq—22 to 46 inches; extremely cobbly loam  
R—46 to 56 inches; unweathered bedrock

#### ***Dissimilar Minor Components***

- Hondoho soils on concave slopes at the lower elevations—10 percent of the map unit
- Softback soils on concave slopes—3 percent of the map unit
- Sprollow soils on convex slopes—3 percent of the map unit
- Sanyon soils on convex, northeast-facing slopes—3 percent of the map unit
- Rock outcrop on shoulders—3 percent of the map unit
- Parkay soils on concave, north- and east-facing slopes—3 percent of the map unit

#### ***Major Use***

Rangeland

### **64—Kabear-Staberg-Copenhagen complex, 4 to 12 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Hills  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,000 to 5,600 feet  
*Mean annual precipitation:* 16 to 19 inches

## Soil Survey of Franklin County Area, Idaho

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

### **Map Unit Composition**

Kabear and similar soils—50 percent

Staberg and similar soils—25 percent

Copenhagen and similar soils—15 percent

Dissimilar minor components—10 percent

### **Characteristics of the Kabear Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 8.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 9 inches; very fine sandy loam

Bw—9 to 45 inches; fine sandy loam

C—45 to 60 inches; fine sandy loam

### **Characteristics of the Staberg Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Alluvium, colluvium, and residuum derived from shale

*Slope:* 4 to 12 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

## Soil Survey of Franklin County Area, Idaho

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 5.0 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### **Typical profile**

Ap—0 to 10 inches; loam

BA—10 to 23 inches; gravelly loam

Bt—23 to 33 inches; very cobbly loam

C—33 to 38 inches; very cobbly sandy loam

Cr—38 to 48 inches; weathered bedrock

### ***Characteristics of the Copenhagen Soil***

### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

### **Properties and qualities**

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 4 to 12 percent

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### **Typical profile**

A—0 to 7 inches; very channery loam

Bw—7 to 13 inches; very channery loam

R—13 to 23 inches; unweathered bedrock

### ***Dissimilar Minor Components***

- Soils that are very deep and have more than 10 percent gravel—5 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—3 percent of the map unit
- Rock outcrop on shoulders—2 percent of the map unit

### ***Major Uses***

Nonirrigated cropland, hayland, pasture, and rangeland

## **65—Kabear-Staberg-Copenhagen complex, 12 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,600 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

### ***Map Unit Composition***

Kabear and similar soils—50 percent

Staberg and similar soils—25 percent

Copenhagen and similar soils—15 percent

Dissimilar minor components—10 percent

### ***Characteristics of the Kabear Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 8.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 9 inches; very fine sandy loam

Bw—9 to 45 inches; fine sandy loam

C—45 to 60 inches; fine sandy loam

### ***Characteristics of the Staberg Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Alluvium, colluvium, and residuum derived from shale  
*Slope:* 12 to 30 percent  
*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 5.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 10 inches; loam  
BA—10 to 23 inches; gravelly loam  
Bt—23 to 33 inches; very cobbly loam  
C—33 to 38 inches; very cobbly sandy loam  
Cr—38 to 48 inches; weathered bedrock

***Characteristics of the Copenhagen Soil***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* West  
*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff  
*Slope:* 12 to 30 percent  
*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

**Typical profile**

A—0 to 7 inches; very channery loam  
Bw—7 to 13 inches; very channery loam  
R—13 to 23 inches; unweathered bedrock

***Dissimilar Minor Components***

- Soils that are very deep and have more than 10 percent gravel—5 percent of the map unit

- Soils that have slopes of less than 12 percent or more than 30 percent—3 percent of the map unit
- Rock outcrop on shoulders—2 percent of the map unit

### ***Major Uses***

Nonirrigated cropland, hayland, pasture, and rangeland

## **66—Kearns silt loam, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,600 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 100 to 130 days

### ***Map Unit Composition***

Kearns and similar soils—80 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Kearns Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 12.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 2c

#### **Typical profile**

A—0 to 16 inches; silt loam

Bk—16 to 38 inches; silt loam

C—38 to 60 inches; silt loam

### ***Dissimilar Minor Components***

- Welby soils on convex, south-facing slopes—10 percent of the map unit
- Parleys soils on concave slopes—5 percent of the map unit
- Kidman soils on linear or convex slopes—5 percent of the map unit



**Major Uses**

Irrigated cropland, hayland, and pasture

**67—Kearnsar-Battle Creek complex, 0 to 4 percent slopes**

**Map Unit Setting**

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,800 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 120 to 130 days

**Map Unit Composition**

Kearnsar and similar soils—60 percent

Battle Creek and similar soils—25 percent

Dissimilar minor components—15 percent

**Characteristics of the Kearnsar Soil**

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 2c

**Typical profile**

Ap—0 to 9 inches; silt loam

A—9 to 23 inches; silty clay loam

Bk1—23 to 27 inches; silty clay loam

Bk2—27 to 45 inches; silt loam

Bk3—45 to 60 inches; silt loam

**Characteristics of the Battle Creek Soil**

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 4 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 42 to 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 5.0  
*Available water capacity (entire profile):* High (about 10.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e  
*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 8 inches; silty clay loam  
AB—8 to 11 inches; silty clay  
Bt—11 to 19 inches; silty clay  
Btk—19 to 40 inches; silty clay  
Bk—40 to 60 inches; silty clay

***Dissimilar Minor Components***

- Trenton soils on concave slopes—5 percent of the map unit
- Parleys soils on convex slopes—5 percent of the map unit
- Kearns soils on convex slopes—5 percent of the map unit

***Major Uses***

Irrigated cropland, hayland, pasture, and building site development

**68—Kidman fine sandy loam, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,500 to 5,100 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 110 to 135 days

***Map Unit Composition***

Kidman and similar soils—90 percent  
Dissimilar minor components—10 percent

***Characteristics of the Kidman Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 4.0

*Available water capacity (entire profile):* Moderate (about 8.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 2c

**Typical profile**

Ap—0 to 12 inches; fine sandy loam

Bw—12 to 25 inches; fine sandy loam

Bk—25 to 44 inches; very fine sandy loam

BCK—44 to 60 inches; very fine sandy loam

***Dissimilar Minor Components***

- Preston soils on convex slopes—5 percent of the map unit
- Soils that have a clayey subsoil at a depth of 28 to 60 inches—3 percent of the map unit
- Soils that have a gravelly subsoil at a depth of 28 to 60 inches—2 percent of the map unit

***Major Uses***

Irrigated cropland, hayland, pasture, and building site development

**69—Kidman fine sandy loam, 2 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 5,000 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 119 to 135 days

***Map Unit Composition***

Kidman and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Kidman Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* South

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Lacustrine deposits

*Slope:* 2 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 4.0

*Available water capacity (entire profile):* Moderate (about 8.9 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 2e

### Typical profile

Ap—0 to 12 inches; fine sandy loam

Bw—12 to 25 inches; fine sandy loam

Bk—25 to 44 inches; very fine sandy loam

BCK—44 to 60 inches; very fine sandy loam

### ***Dissimilar Minor Components***

- Parleys soils on concave slopes—5 percent of the map unit
- Collinston soils on linear or convex slopes—5 percent of the map unit
- Preston soils on convex slopes—3 percent of the map unit
- Soils that are calcareous throughout—2 percent of the map unit

### ***Major Uses***

Irrigated cropland, hayland, pasture, and building site development

## **70—Kidman fine sandy loam, 20 to 40 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,600 to 4,800 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 110 to 135 days

### ***Map Unit Composition***

Kidman and similar soils—85 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Kidman Soil***

### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to west (clockwise)

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 20 to 40 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 4.0

*Available water capacity (entire profile):* Moderate (about 8.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Land capability subclass (irrigated):* 6e

*Ecological site:* Loamy 11-13 Artr/pssp6 (R028AY024ID)

**Typical profile**

Ap—0 to 12 inches; fine sandy loam

Bw—12 to 25 inches; fine sandy loam

Bk—25 to 44 inches; very fine sandy loam

BCK—44 to 60 inches; very fine sandy loam

***Dissimilar Minor Components***

- Soils that have a high water table within 18 inches of the surface—5 percent of the map unit
- Preston soils on dunes—5 percent of the map unit
- Parleys soils on linear or concave slopes—3 percent of the map unit
- Collinston soils on linear or convex slopes—2 percent of the map unit

***Major Uses***

Pasture and rangeland

**71—Kidman fine sandy loam, wet, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 5,100 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 110 to 135 days

***Map Unit Composition***

Kidman and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Kidman, wet Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 42 to 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 4.0  
*Available water capacity (entire profile):* Moderate (about 8.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 2c

**Typical profile**

Ap—0 to 12 inches; fine sandy loam  
Bw—12 to 25 inches; fine sandy loam  
Bk—25 to 44 inches; very fine sandy loam  
BCK—44 to 60 inches; very fine sandy loam

***Dissimilar Minor Components***

- Layton soils on convex slopes—5 percent of the map unit
- Soils that have a clayey subsoil at a depth of 28 to 60 inches—3 percent of the map unit
- Maplecreek soils on concave slopes—3 percent of the map unit
- Soils that have a gravelly subsoil at a depth of 28 to 60 inches—2 percent of the map unit
- Soils that have a high water table within a depth of 12 inches—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

**72—Kidman-Sterling complex, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,500 to 4,700 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 110 to 135 days

***Map Unit Composition***

Kidman and similar soils—45 percent  
Sterling and similar soils—30 percent  
Dissimilar minor components—25 percent

### ***Characteristics of the Kidman Soil***

#### **Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 4.0  
*Available water capacity (entire profile):* Moderate (about 8.9 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 2c

#### **Typical profile**

Ap—0 to 12 inches; fine sandy loam  
Bw—12 to 25 inches; fine sandy loam  
Bk—25 to 44 inches; very fine sandy loam  
BCK—44 to 60 inches; very fine sandy loam

### ***Characteristics of the Sterling Soil***

#### **Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Alluvium derived from limestone  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Low (about 5.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 2s  
*Land capability subclass (irrigated):* 2s



**Typical profile**

A—0 to 8 inches; gravelly loam

Bk—8 to 66 inches; very gravelly loam

***Dissimilar Minor Components***

- Welby soils on convex slopes—10 percent of the map unit
- Soils that have a dark surface layer that is 20 to 30 inches thick—10 percent of the map unit
- Hondee soils in old channels—5 percent of the map unit

***Major Uses***

Irrigated cropland, hayland, and pasture

**73—Lando silt loam, 0 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 5,200 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 100 to 130 days

***Map Unit Composition***

Lando and similar soils—75 percent

Dissimilar minor components—25 percent

***Characteristics of the Lando Soil***

**Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 24 to 48 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 4.0

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 2e

**Typical profile**

Ap—0 to 5 inches; silt loam

AB—5 to 14 inches; silty clay loam

Bk—14 to 33 inches; silty clay loam  
Bkg—33 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Soils that have more than 10 percent gravel in the subsoil—10 percent of the map unit
- Soils that are on concave slopes and are poorly drained—5 percent of the map unit
- Soils that have more than 35 percent clay in the subsoil—5 percent of the map unit
- Soils that have light colored surface horizons—5 percent of the map unit

***Major Uses***

Irrigated cropland, hayland, and pasture

**74—Lanoak silt loam, 0 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Hills and mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,300 to 5,500 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 75 to 100 days

***Map Unit Composition***

Lanoak and similar soils—75 percent

Dissimilar minor components—25 percent

***Characteristics of the Lanoak Soil***

**Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 3c

**Typical profile**

A—0 to 36 inches; silt loam

Bt—36 to 50 inches; silt loam

Bk—50 to 60 inches; silt loam

***Dissimilar Minor Components***

- Huffman soils on slightly convex slopes in draws—10 percent of the map unit
- Soils that have slopes of more than 4 percent—5 percent of the map unit
- Arbone soils on linear or convex slopes—5 percent of the map unit
- Downata soils—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

**75—Lanoak silt loam, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Hills and mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,300 to 5,500 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 75 to 100 days

***Map Unit Composition***

Lanoak and similar soils—75 percent

Dissimilar minor components—25 percent

***Characteristics of the Lanoak Soil***

**Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

A—0 to 36 inches; silt loam

Bt—36 to 50 inches; silt loam

Bk—50 to 60 inches; silt loam

***Dissimilar Minor Components***

- Huffman soils on slightly convex slopes in draws—10 percent of the map unit
- Cedarhill soils on footslopes—10 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and rangeland

**76—Lanoak-Broadhead complex, 12 to 30 percent slopes**

***Map Unit Setting***

*General landscape:* Hills and mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,100 to 5,500 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 75 to 100 days

***Map Unit Composition***

Lanoak and similar soils—45 percent

Broadhead and similar soils—40 percent

Dissimilar minor components—15 percent

***Characteristics of the Lanoak Soil***

**Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northwest

*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

A—0 to 36 inches; silt loam  
Bt—36 to 50 inches; silt loam  
Bk—50 to 60 inches; silt loam

***Characteristics of the Broadhead Soil***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Northwest  
*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium  
*Slope:* 12 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 7 inches; silt loam  
Bt1—7 to 10 inches; silty clay loam  
Bt2—10 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Yeates Hollow soils on concave slopes—5 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 30 percent—5 percent of the map unit
- Brifox soils on convex summits and on ridges—5 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**77—Lanoak-Broadhead-Hades complex, 25 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Hills and mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,100 to 5,900 feet  
*Mean annual precipitation:* 15 to 18 inches  
*Mean annual air temperature:* 41 to 44 degrees F  
*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Lanoak and similar soils—35 percent  
Broadhead and similar soils—30 percent  
Hades and similar soils—15 percent  
Dissimilar minor components—20 percent

### **Characteristics of the Lanoak Soil**

#### **Setting**

*Landform:* Hillslopes and mountain slopes  
*Geomorphic position (two-dimensional):* Footslopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* Northwest  
*Range in aspect:* Southwest to north (clockwise)

#### **Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 25 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 12.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

#### **Typical profile**

A—0 to 36 inches; silt loam  
Bt—36 to 50 inches; silt loam  
Bk—50 to 60 inches; silt loam

### **Characteristics of the Broadhead Soil**

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* Northwest  
*Range in aspect:* Southwest to north (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium  
*Slope:* 25 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline

## Soil Survey of Franklin County Area, Idaho

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 10 inches; silty clay loam

Bt2—10 to 60 inches; silty clay loam

### ***Characteristics of the Hades Soil***

### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northwest

*Range in aspect:* Southwest to north (clockwise)

### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 35 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### **Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

### ***Dissimilar Minor Components***

- Soils that have more than 15 percent fine sand and coarser sand—10 percent of the map unit
- Aquolls in depressions—5 percent of the map unit
- Brifox soils on convex slopes—5 percent of the map unit

### ***Major Use***

Rangeland

## **78—Lanoak-Hades complex, 6 to 20 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills and mountains

*Major land resource area (MLRA):* 28A

*Elevation:* 5,500 to 6,500 feet



## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Lanoak and similar soils—40 percent

Hades and similar soils—35 percent

Dissimilar minor components—25 percent

### **Characteristics of the Lanoak Soil**

#### **Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* Southeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 6 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

A—0 to 21 inches; silt loam

Bt—21 to 50 inches; silt loam

Bk—50 to 60 inches; silt loam

### **Characteristics of the Hades Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* Southeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 6 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

## Soil Survey of Franklin County Area, Idaho

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### **Typical profile**

Ap—0 to 5 inches; silt loam

Bt—5 to 60 inches; gravelly silty clay loam

### ***Dissimilar Minor Components***

- Soils that have a mean annual soil temperature of less than 43 degrees F—5 percent of the map unit
- Valmar soils on ridges—5 percent of the map unit
- Moonlight soils on north- and east-facing slopes—5 percent of the map unit
- Camelback soils on convex slopes—5 percent of the map unit
- Soils that have slopes of less than 6 percent or more than 20 percent—3 percent of the map unit
- Cedarhill soils on convex, south- and west-facing slopes—2 percent of the map unit

### ***Major Uses***

Nonirrigated cropland and rangeland

## **79—Lanoak-Thatcher complex, 12 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills and mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,600 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

### ***Map Unit Composition***

Lanoak and similar soils—60 percent

Thatcher and similar soils—25 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Lanoak Soil***

#### **Setting**

*Landform:* Hillslopes and mountain slopes

*Geomorphic position (two-dimensional):* Footslopes

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

## Soil Survey of Franklin County Area, Idaho

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### **Typical profile**

A—0 to 36 inches; silt loam

Bt—36 to 50 inches; silt loam

Bk—50 to 60 inches; silt loam

### ***Characteristics of the Thatcher Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and lacustrine deposits

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 9.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

### **Typical profile**

Ap—0 to 8 inches; loam

Bt—8 to 21 inches; silty clay loam

Bk—21 to 60 inches; silt loam

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 12 percent or more than 30 percent—5 percent of the map unit
- Iphil soils on ridges and shoulders—5 percent of the map unit
- Arbone soils on ridges and shoulders—5 percent of the map unit

### ***Major Uses***

Nonirrigated cropland and rangeland

## **80—Layton loamy fine sand, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,700 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Layton and similar soils—85 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Layton Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 60 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 5.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 13 inches; loamy fine sand

A—13 to 19 inches; loamy fine sand

Bk—19 to 34 inches; loamy sand

C—34 to 64 inches; loamy sand

### ***Dissimilar Minor Components***

- Kearns soils—5 percent of the map unit
- Preston soils on backslopes and footslopes—3 percent of the map unit
- Kidman soils on convex slopes and narrow ridges—3 percent of the map unit
- Wet soils—2 percent of the map unit
- Maplecreek soils on concave slopes—2 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

## **81—Layton sandy loam, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,900 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Layton and similar soils—80 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Layton Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 60 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 5.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

#### **Typical profile**

Ap—0 to 13 inches; loamy fine sand

A—13 to 19 inches; loamy fine sand

Bk—19 to 34 inches; loamy sand

C—34 to 64 inches; loamy sand

### ***Dissimilar Minor Components***

- Preston soils on terrace risers—5 percent of the map unit
- Kidman soils on convex slopes—5 percent of the map unit
- Battle Creek soils—5 percent of the map unit
- Maplecreek soils on concave slopes—3 percent of the map unit
- Wet soils—2 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

## **82—Lizdale very stony loam, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,000 to 5,800 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 65 to 90 days

### ***Map Unit Composition***

Lizdale and similar soils—80 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Lizdale Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Moderate (about 6.6 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Gravelly South Slope 12-16 Artv/pssp6 (R013XY012ID)

#### **Typical profile**

Ak—0 to 6 inches; very stony loam

ABk—6 to 13 inches; very gravelly silt loam

Bk1—13 to 52 inches; very gravelly sandy loam

Bk2—52 to 64 inches; gravelly sandy loam

Bk3—64 to 76 inches; extremely gravelly sandy loam

### ***Dissimilar Minor Components***

- Yeates Hollow soils on concave, north-facing slopes—5 percent of the map unit
- Sprollow soils on convex slopes and on ridges—5 percent of the map unit
- Soils that have slopes of less than 30 percent or more than 60 percent—5 percent of the map unit
- Hondoho soils on concave slopes—5 percent of the map unit

### ***Major Use***

Rangeland

## **83—Lizdale-Searla complex, 12 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Alluvial plains  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,200 to 6,000 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 42 to 44 degrees F  
*Frost-free period:* 65 to 90 days

### ***Map Unit Composition***

Lizdale and similar soils—55 percent  
Searla and similar soils—35 percent  
Dissimilar minor components—10 percent

### ***Characteristics of the Lizdale Soil***

#### **Setting**

*Landform:* Fan remnants  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 12 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Moderate (about 6.6 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

#### **Typical profile**

Ak—0 to 6 inches; very stony loam  
ABk—6 to 13 inches; very gravelly silt loam  
Bk1—13 to 52 inches; very gravelly sandy loam  
Bk2—52 to 64 inches; gravelly sandy loam  
Bk3—64 to 76 inches; extremely gravelly sandy loam

### ***Characteristics of the Searla Soil***

#### **Setting**

*Landform:* Fan remnants  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)



**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.5 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

**Typical profile**

A—0 to 9 inches; gravelly loam

Bt—9 to 28 inches; very gravelly clay loam

Bk—28 to 60 inches; extremely gravelly sandy loam

***Dissimilar Minor Components***

- Harroun soils on convex slopes—5 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 30 percent—3 percent of the map unit
- Soils that have less than 35 percent rock fragments in the subsoil—2 percent of the map unit

***Major Use***

Rangeland

**84—Logan silty clay loam, 0 to 3 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,500 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 140 days

***Map Unit Composition***

Logan and similar soils—90 percent

Dissimilar minor components—10 percent

***Characteristics of the Logan Soil***

**Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 3 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 12 inches

*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 9.0

*Available water capacity (entire profile):* High (about 11.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R028AY028ID)

**Typical profile**

Oe—0 to 2 inches; moderately decomposed plant material

A—2 to 15 inches; silty clay loam

Bkg—15 to 28 inches; silty clay loam

Cg1—28 to 47 inches; silty clay loam

Cg2—47 to 62 inches; silty clay loam

***Dissimilar Minor Components***

- Somewhat poorly drained soils that have a water table below a depth of 18 inches—5 percent of the map unit
- Stratified, sandy and loamy soils—5 percent of the map unit

***Major Uses***

Hayland and rangeland

**85—Lonigan-Lizdale association, 6 to 40 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,800 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 70 to 95 days

***Map Unit Composition***

Lonigan and similar soils—40 percent

Lizdale and similar soils—40 percent

Dissimilar minor components—20 percent

***Characteristics of the Lonigan Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

## Soil Survey of Franklin County Area, Idaho

*Across-slope shape:* Convex  
*Representative aspect:* North  
*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff  
*Slope:* 12 to 40 percent  
*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 3.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 6e  
*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### Typical profile

A—0 to 8 inches; gravelly silt loam  
Bw—8 to 11 inches; very gravelly silt loam  
Bk—11 to 24 inches; very gravelly silt loam  
Cr—24 to 34 inches; weathered bedrock

### ***Characteristics of the Lizdale Soil***

### Setting

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* North  
*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Mixed alluvium  
*Slope:* 6 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Moderate (about 6.6 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3e  
*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### Typical profile

Ak—0 to 6 inches; very stony loam  
ABk—6 to 13 inches; very gravelly silt loam  
Bk1—13 to 52 inches; very gravelly sandy loam

Bk2—52 to 64 inches; gravelly sandy loam

Bk3—64 to 76 inches; extremely gravelly sandy loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 6 percent or more than 40 percent—5 percent of the map unit
- Pavohroo soils on north-facing slopes—5 percent of the map unit
- Manila soils on linear, lower slopes—5 percent of the map unit
- Copenhagen soils on backslopes and footslopes—5 percent of the map unit

***Major Use***

Rangeland

**86—Lonigan-Ricrest association, 50 to 80 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,600 to 6,100 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 70 to 90 days

***Map Unit Composition***

Lonigan and similar soils—45 percent

Ricrest and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Lonigan Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

**Properties and qualities**

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 50 to 80 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

A—0 to 8 inches; gravelly silt loam  
Bw—8 to 11 inches; very gravelly silt loam  
Bk—11 to 24 inches; very gravelly silt loam  
Cr—24 to 34 inches; weathered bedrock

***Characteristics of the Ricrest Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium  
*Slope:* 50 to 80 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 9.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

Ap—0 to 6 inches; gravelly silt loam  
Bw—6 to 20 inches; gravelly silt loam  
Bk—20 to 60 inches; gravelly silt loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 50 percent or more than 80 percent—5 percent of the map unit
- Rock outcrop on shoulders—5 percent of the map unit
- Parkay soils on concave, north-facing slopes—5 percent of the map unit
- Copenhagen soils on convex slopes—5 percent of the map unit
- Bergquist soils on north-facing slopes—5 percent of the map unit

***Major Use***

Rangeland

**87—Manila silt loam, 0 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Alluvial plains  
*Major land resource area (MLRA):* 13  
*Elevation:* 4,800 to 5,900 feet

## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

### **Map Unit Composition**

Manila and similar soils—85 percent

Dissimilar minor components—15 percent

### **Characteristics of the Manila Soil**

#### **Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### **Dissimilar Minor Components**

- Broadhead soils on concave, north-facing slopes—10 percent of the map unit
- Yeates Hollow soils on convex slopes near draws and ridges—5 percent of the map unit

### **Major Use**

Nonirrigated cropland

## **88—Manila silt loam, 4 to 12 percent slopes**

### **Map Unit Setting**

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,100 to 5,500 feet

*Mean annual precipitation:* 16 to 19 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

### **Map Unit Composition**

Manila and similar soils—80 percent

Dissimilar minor components—20 percent

### **Characteristics of the Manila Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### **Dissimilar Minor Components**

- Oxford soils on slightly concave slopes and in depressions—10 percent of the map unit
- Broadhead soils on concave, north-facing slopes—5 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—3 percent of the map unit
- Pollynot soils on linear or convex, south-facing slopes—2 percent of the map unit

### **Major Uses**

Irrigated and nonirrigated cropland, hayland, rangeland, and building site development

## **89—Manila silt loam, 12 to 30 percent slopes**

### **Map Unit Setting**

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 4,900 to 5,900 feet



## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

### **Map Unit Composition**

Manila and similar soils—85 percent

Dissimilar minor components—15 percent

### **Characteristics of the Manila Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* Northwest to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### **Dissimilar Minor Components**

- Yeates Hollow soils on convex slopes near draws and ridges—10 percent of the map unit
- Broadhead soils on concave, north-facing slopes—5 percent of the map unit

### **Major Uses**

Nonirrigated cropland and rangeland

## **90—Manila-Bancroft complex, 6 to 15 percent slopes**

### **Map Unit Setting**

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 15 to 19 inches

## Soil Survey of Franklin County Area, Idaho

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 70 to 80 days

### **Map Unit Composition**

Manila and similar soils—50 percent

Bancroft and similar soils—30 percent

Dissimilar minor components—20 percent

### **Characteristics of the Manila Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 6 to 15 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### **Characteristics of the Bancroft Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Loess

*Slope:* 6 to 15 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 13-16 Artv/pssp6 (R013XY001ID)

**Typical profile**

Ap—0 to 7 inches; silt loam

Bt—7 to 37 inches; silty clay loam

Bk—37 to 60 inches; silt loam

***Dissimilar Minor Components***

- Yago soils on convex slopes and on ridges—5 percent of the map unit
- Iphil soils on ridges—5 percent of the map unit
- Broadhead soils on concave slopes and on north-facing slopes—5 percent of the map unit
- Soils that have slopes of less than 6 percent or more than 15 percent—2 percent of the map unit
- Cedarhill soils on convex, south- and west-facing slopes—2 percent of the map unit
- Hades soils on concave slopes—1 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**91—Manila-Broadhead complex, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,000 to 5,800 feet

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

***Map Unit Composition***

Manila and similar soils—50 percent

Broadhead and similar soils—25 percent

Dissimilar minor components—25 percent

***Characteristics of the Manila Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

## Soil Survey of Franklin County Area, Idaho

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### ***Characteristics of the Broadhead Soil***

### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 10 inches; silty clay loam

Bt2—10 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Yeates Hollow soils on linear slopes—10 percent of the map unit
- Thatcher soils on south-facing slopes—5 percent of the map unit
- Oxford soils on concave slopes and on east-facing slopes—5 percent of the map unit
- Poorly drained soils that have a water table within a depth of 18 inches—3 percent of the map unit
- Huffman soils on convex, south-facing slopes—2 percent of the map unit

### ***Major Uses***

Nonirrigated cropland and building site development

## **92—Manila-Broadhead complex, 12 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,000 to 5,900 feet

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

### ***Map Unit Composition***

Manila and similar soils—40 percent

Broadhead and similar soils—35 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Manila Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

#### **Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### ***Characteristics of the Broadhead Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 10 inches; silty clay loam

Bt2—10 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Yeates Hollow soils on convex slopes near draws and ridges—10 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit
- Hades soils on linear or concave slopes—3 percent of the map unit
- Cedarhill soils on footslopes and summits—3 percent of the map unit
- Wursten soils on west-facing slopes—2 percent of the map unit
- Iphil soils on convex slopes—2 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, and rangeland

**93—Manila-Lonigan complex, 6 to 40 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 5,900 feet

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

***Map Unit Composition***

Manila and similar soils—50 percent

Lonigan and similar soils—30 percent

Dissimilar minor components—20 percent

***Characteristics of the Manila Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

### Properties and qualities

*Parent material:* Mixed alluvium

*Slope:* 6 to 40 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### Typical profile

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

## Characteristics of the Lonigan Soil

### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 6 to 40 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### Typical profile

A—0 to 8 inches; gravelly silt loam

Bw—8 to 11 inches; very gravelly silt loam

Bk—11 to 24 inches; very gravelly silt loam

Cr—24 to 34 inches; weathered bedrock



***Dissimilar Minor Components***

- Broadhead soils on concave slopes—10 percent of the map unit
- Copenhagen soils on the shoulders of ridges—5 percent of the map unit
- Bergquist soils on concave slopes—5 percent of the map unit

***Major Use***

Rangeland

**94—Manila-Yeates Hollow complex, 6 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

***Map Unit Composition***

Manila and similar soils—55 percent

Yeates Hollow and similar soils—30 percent

Dissimilar minor components—15 percent

***Characteristics of the Manila Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* Northwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 6 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### ***Characteristics of the Yeates Hollow Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* Northwest to northeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 6 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

#### **Typical profile**

A—0 to 8 inches; cobbly silt loam

BA—8 to 16 inches; extremely cobbly loam

Bt1—16 to 19 inches; extremely cobbly clay loam

Bt2—19 to 29 inches; very cobbly clay

Bt3—29 to 60 inches; very gravelly clay loam

#### ***Dissimilar Minor Components***

- Broadhead soils on concave slopes—10 percent of the map unit
- Staberg soils on convex slopes—5 percent of the map unit

#### ***Major Uses***

Nonirrigated cropland, hayland, rangeland, and building site development

## **95—Maplecreek fine sandy loam, 0 to 2 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 110 to 130 days

#### ***Map Unit Composition***

Maplecreek and similar soils—95 percent

Dissimilar minor components—5 percent

### ***Characteristics of the Maplecreek Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* East to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 24 to 42 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Moderate (about 7.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3w  
*Land capability subclass (irrigated):* 3w

#### **Typical profile**

A—0 to 14 inches; fine sandy loam  
Bk—14 to 35 inches; fine sandy loam  
C—35 to 60 inches; loamy fine sand

#### ***Dissimilar Minor Components***

- Layton soils—2 percent of the map unit
- Lando soils on convex slopes—2 percent of the map unit
- Soils that have a seasonal high water table within a depth of 12 inches—1 percent of the map unit

#### ***Major Uses***

Irrigated cropland, hayland, and pasture

### **96—Maplecreek-Layton complex, 0 to 2 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,400 to 4,900 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 120 to 130 days

#### ***Map Unit Composition***

Maplecreek and similar soils—45 percent  
Layton and similar soils—35 percent  
Dissimilar minor components—20 percent

### ***Characteristics of the Maplecreek Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 24 to 42 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Moderate (about 7.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3w  
*Land capability subclass (irrigated):* 3w

#### **Typical profile**

A—0 to 14 inches; fine sandy loam  
Bk—14 to 35 inches; fine sandy loam  
C—35 to 60 inches; loamy fine sand

### ***Characteristics of the Layton Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 42 to 60 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 5.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e  
*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 13 inches; loamy fine sand

A—13 to 19 inches; loamy fine sand

Bk—19 to 34 inches; loamy sand

C—34 to 64 inches; loamy sand

***Dissimilar Minor Components***

- Kidman soils on linear slopes—10 percent of the map unit
- Battle Creek soils on the higher linear or convex slopes—5 percent of the map unit
- Preston soils on terrace risers—3 percent of the map unit
- Soils that have a seasonal high water table within a depth of 12 inches—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

**97—Merkley-Lago-Bear Lake complex, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 13

*Elevation:* 4,600 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Merkley and similar soils—45 percent

Lago and similar soils—20 percent

Bear Lake and similar soils—15 percent

Dissimilar minor components—20 percent

***Characteristics of the Merkley Soil***

**Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium and loess

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 48 to 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 4.0

*Available water capacity (entire profile):* High (about 9.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

## Soil Survey of Franklin County Area, Idaho

*Land capability subclass (irrigated): 3c*

*Ecological site: Loamy Bottom 12-16 Artrt/leci4-Agrop (R013XY045ID)*

### Typical profile

A—0 to 5 inches; silt loam

Bk1—5 to 31 inches; loam

Bk2—31 to 50 inches; fine sandy loam

2C—50 to 61 inches; very gravelly loamy sand

### ***Characteristics of the Lago Soil***

#### Setting

*Landform: Stream terraces*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Representative aspect: North*

*Range in aspect: All aspects*

#### Properties and qualities

*Parent material: Silty alluvium*

*Slope: 0 to 2 percent*

*Restrictive feature: None within a depth of 60 inches*

*Drainage class: Somewhat poorly drained*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high*

*Flooding: Rare*

*Ponding: None*

*Seasonal high water table (minimum depth): About 18 to 36 inches*

*Salinity (maximum): Nonsaline*

*Sodicity (maximum): Sodium adsorption ratio of about 3.0*

*Available water capacity (entire profile): High (about 10.5 inches)*

#### Interpretive groups

*Land capability subclass (nonirrigated): 4w*

*Land capability subclass (irrigated): 4w*

*Ecological site: Semiwet Meadow (R013XY039ID)*

### Typical profile

A—0 to 9 inches; silt loam

Bk—9 to 16 inches; silt loam

Bkg—16 to 45 inches; silt loam

Cg—45 to 60 inches; sandy loam

### ***Characteristics of the Bear Lake Soil***

#### Setting

*Landform: Flood plains*

*Down-slope shape: Concave*

*Across-slope shape: Linear*

*Representative aspect: North*

*Range in aspect: All aspects*

#### Properties and qualities

*Parent material: Mixed alluvium*

*Slope: 0 to 2 percent*

*Restrictive feature: None within a depth of 60 inches*

*Drainage class: Poorly drained*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high*

## Soil Survey of Franklin County Area, Idaho

*Flooding:* Occasional

*Ponding:* None

*Seasonal high water table (minimum depth):* About 0 to 18 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Moderate (about 8.6 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w

*Land capability subclass (irrigated):* 5w

*Ecological site:* Wet Meadow (R028AY028ID)

### **Typical profile**

A—0 to 11 inches; silty clay loam

Bkg1—11 to 20 inches; silty clay loam

Bkg2—20 to 26 inches; silty clay loam

Bkg3—26 to 60 inches; silty clay loam

### ***Dissimilar Minor Components***

- Soils that have travertine bedrock at a depth of 15 to 35 inches—5 percent of the map unit
- Picabo soils on linear or convex slopes—5 percent of the map unit
- Thatcherflats soils on concave slopes—5 percent of the map unit
- Soils in areas where the mean annual air temperature is more than 47 degrees F—3 percent of the map unit
- Downata soils—2 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and rangeland

## **98—Moonlight-Camelback association, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 47

*Elevation:* 5,400 to 6,300 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 37 to 43 degrees F

*Frost-free period:* 40 to 90 days

### ***Map Unit Composition***

Moonlight and similar soils—40 percent

Camelback and similar soils—35 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Moonlight Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)



**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very high (about 12.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Loamy Mountain Slopes 16-22 Acgl/brca5 (R013XY020ID)

**Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material  
Oe—1 to 2 inches; moderately decomposed plant material  
A—2 to 26 inches; silt loam  
Bw—26 to 62 inches; silt loam

***Characteristics of the Camelback Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Representative aspect:* West  
*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 7.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

A1—0 to 3 inches; very gravelly silt loam  
A2—3 to 14 inches; very gravelly silt loam  
Bt1—14 to 22 inches; very gravelly silt loam  
Bt2—22 to 32 inches; very gravelly silty clay loam  
Bt3—32 to 50 inches; very gravelly silt loam  
BC—50 to 61 inches; very gravelly loam

***Dissimilar Minor Components***

- Soils that have a seasonal high water table within a depth of 60 inches—10 percent of the map unit
- Soils that have slopes of less than 30 percent—5 percent of the map unit
- Rock outcrop and talus on shoulders—5 percent of the map unit
- Pavohroo soils on concave slopes—5 percent of the map unit

***Major Use***

Rangeland

**99—Niter-Brifox complex, 1 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,200 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 80 to 100 days

***Map Unit Composition***

Niter and similar soils—60 percent

Brifox and similar soils—20 percent

Dissimilar minor components—20 percent

***Characteristics of the Niter Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 1 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 10.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 8 inches; silty clay loam

Bss—8 to 19 inches; silty clay loam

Bkss—19 to 60 inches; silty clay

### ***Characteristics of the Brifox Soil***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:*  
*Slope:* 1 to 4 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 2.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 10.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 7 inches; silty clay  
Bss—7 to 18 inches; silty clay  
Bkss—18 to 60 inches; silty clay

#### ***Dissimilar Minor Components***

- Soils that have slopes of more than 4 percent—10 percent of the map unit
- Lanoak soils on concave slopes—5 percent of the map unit
- Thatcher soils on concave slopes—3 percent of the map unit
- Aquerts—2 percent of the map unit

#### ***Major Uses***

Irrigated cropland and hayland

### **100—Northwater-Foxol-Vitale complex, 50 to 80 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,600 to 6,800 feet  
*Mean annual precipitation:* 18 to 25 inches  
*Mean annual air temperature:* 36 to 43 degrees F  
*Frost-free period:* 30 to 70 days

#### ***Map Unit Composition***

Northwater and similar soils—35 percent  
Foxol and similar soils—25 percent  
Vitale and similar soils—20 percent

Dissimilar minor components—20 percent

***Characteristics of the Northwater Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* Northeast  
*Range in aspect:* North to east (clockwise)

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 60 to 80 percent  
*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 3.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

**Typical profile**

A—0 to 12 inches; gravelly very fine sandy loam  
Bt—12 to 28 inches; extremely gravelly loam  
BC—28 to 46 inches; extremely gravelly loam  
R—46 to 56 inches; unweathered bedrock

***Characteristics of the Foxol Soil***

**Setting**

*Landform:* Mountain slopes  
*Geomorphic position (two-dimensional):* Summits and shoulders  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* Northeast  
*Range in aspect:* North to east (clockwise)

**Properties and qualities**

*Parent material:* Colluvium and residuum derived from quartzite  
*Slope:* 60 to 80 percent  
*Depth to a restrictive feature:* 14 to 20 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Shallow Stony 12-16 Arar8/pssp6 (R013XY014ID)

**Typical profile**

A1—0 to 3 inches; very stony loam  
A2—3 to 9 inches; very stony loam  
Bw—9 to 17 inches; extremely stony loam  
R—17 to 27 inches; unweathered bedrock

***Characteristics of the Vitale Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Northeast  
*Range in aspect:* North to east (clockwise)

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 50 to 75 percent  
*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

**Typical profile**

A1—0 to 1 inch; extremely stony loam  
A2—1 to 15 inches; very cobbly loam  
Bt—15 to 26 inches; extremely cobbly clay loam  
R—26 to 36 inches; unweathered bedrock

***Dissimilar Minor Components***

- Rock outcrop—10 percent of the map unit
- Soils that have slopes of less than 50 percent or more than 80 percent—5 percent of the map unit
- Soils that are on south-facing slopes and have more than 35 percent clay in the subsoil—5 percent of the map unit

***Major Use***

Rangeland

**101—Northwater-Povey complex, 10 to 30 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 6,000 to 7,960 feet

## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 20 to 30 inches

*Mean annual air temperature:* 36 to 40 degrees F

*Frost-free period:* 30 to 60 days

### **Map Unit Composition**

Northwater and similar soils—65 percent

Povey and similar soils—25 percent

Dissimilar minor components—10 percent

### **Characteristics of the Northwater Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* Northwest to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum

*Slope:* 20 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.6 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)

#### **Typical profile**

A—0 to 12 inches; gravelly very fine sandy loam

Bt—12 to 28 inches; extremely gravelly loam

BC—28 to 46 inches; extremely gravelly loam

R—46 to 56 inches; unweathered bedrock

### **Characteristics of the Povey Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northeast

*Range in aspect:* Northwest to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 10 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

## Soil Survey of Franklin County Area, Idaho

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### **Typical profile**

A—0 to 17 inches; gravelly silt loam

Bw—17 to 38 inches; very cobbly loam

C—38 to 60 inches; extremely gravelly sandy loam

### ***Dissimilar Minor Components***

- Parkay soils on concave slopes—3 percent of the map unit
- Dranburn soils on concave slopes—3 percent of the map unit
- Wet soils—2 percent of the map unit
- Soils that have slopes of less than 10 percent or more than 30 percent—2 percent of the map unit

### ***Major Uses***

Rangeland and forest land

## **102—Northwater-Povey complex, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,900 to 7,700 feet

*Mean annual precipitation:* 20 to 30 inches

*Mean annual air temperature:* 36 to 40 degrees F

*Frost-free period:* 30 to 60 days

### ***Map Unit Composition***

Northwater and similar soils—65 percent

Povey and similar soils—15 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Northwater Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* North

*Range in aspect:* West to northeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None



## Soil Survey of Franklin County Area, Idaho

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.6 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)

### **Typical profile**

A—0 to 12 inches; gravelly very fine sandy loam

Bt—12 to 28 inches; extremely gravelly loam

BC—28 to 46 inches; extremely gravelly loam

R—46 to 56 inches; unweathered bedrock

### ***Characteristics of the Povey Soil***

### **Setting**

*Landform:* Mountain slopes

*Geomorphic position (two-dimensional):* Summits and backslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* North

*Range in aspect:* West to northeast (clockwise)

### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

### **Typical profile**

A—0 to 17 inches; gravelly silt loam

Bw—17 to 38 inches; very cobbly loam

C—38 to 60 inches; extremely gravelly sandy loam

### ***Dissimilar Minor Components***

- Polumar soils on toeslopes—10 percent of the map unit
- Poorly drained soils near seeps and in drainageways—5 percent of the map unit
- Soils that have slopes of less than 30 percent or more than 60 percent—3 percent of the map unit
- Rock outcrop on shoulders—2 percent of the map unit

### ***Major Uses***

Rangeland and forest land

## **103—Nyman-Lonigan-Copenhagen complex, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,300 to 6,100 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 39 to 45 degrees F

*Frost-free period:* 60 to 95 days

### ***Map Unit Composition***

Nyman and similar soils—50 percent

Lonigan and similar soils—20 percent

Copenhagen and similar soils—15 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Nyman Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* North

*Range in aspect:* West to east (clockwise)

#### **Properties and qualities**

*Parent material:* Residuum weathered from tuff

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 4.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)

#### **Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

A1—1 to 6 inches; channery silt loam

A2—6 to 12 inches; channery loam

A3—12 to 20 inches; channery loam

Bw1—20 to 25 inches; very channery loam

Bw2—25 to 36 inches; very channery loam

R—36 to 46 inches; unweathered bedrock

### ***Characteristics of the Lonigan Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

## Soil Survey of Franklin County Area, Idaho

*Across-slope shape:* Convex  
*Representative aspect:* North  
*Range in aspect:* West to east (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff  
*Slope:* 30 to 55 percent  
*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 3.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

### Typical profile

A—0 to 8 inches; gravelly silt loam  
Bw—8 to 11 inches; very gravelly silt loam  
Bk—11 to 24 inches; very gravelly silt loam  
Cr—24 to 34 inches; weathered bedrock

## ***Characteristics of the Copenhagen Soil***

### Setting

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Representative aspect:* North  
*Range in aspect:* West to east (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff  
*Slope:* 30 to 55 percent  
*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.2 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### Typical profile

A—0 to 7 inches; very channery loam  
Bw—7 to 13 inches; very channery loam  
R—13 to 23 inches; unweathered bedrock

***Dissimilar Minor Components***

- Wet soils near seeps—5 percent of the map unit
- Soils that have slopes of less than 30 percent or more than 60 percent—3 percent of the map unit
- Smidale soils on concave slopes—3 percent of the map unit
- Wormcreek soils on concave slopes—2 percent of the map unit
- Rock outcrop on shoulders—2 percent of the map unit

***Major Use***

Rangeland

**104—Oxford-Banida complex, 2 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 90 to 105 days

***Map Unit Composition***

Oxford and similar soils—45 percent

Banida and similar soils—35 percent

Dissimilar minor components—20 percent

***Characteristics of the Oxford Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 2 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 9.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 5 inches; silty clay

Bw—5 to 26 inches; silty clay

Bky—26 to 63 inches; clay

### ***Characteristics of the Banida Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 2 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 9.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

#### **Typical profile**

Ap—0 to 6 inches; silty clay loam

Bw1—6 to 22 inches; silty clay

Bw2—22 to 35 inches; silty clay

Bk—35 to 64 inches; silty clay

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 2 percent or more than 4 percent—10 percent of the map unit
- Pollynot soils on convex slopes—5 percent of the map unit
- Ant Flat soils on linear or convex slopes—5 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland and hayland

## **105—Oxford-Banida complex, 4 to 12 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 90 to 105 days

### ***Map Unit Composition***

Oxford and similar soils—45 percent

Banida and similar soils—35 percent

Dissimilar minor components—20 percent

***Characteristics of the Oxford Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 4 to 12 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 9.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

Ap—0 to 5 inches; silty clay  
Bw—5 to 26 inches; silty clay  
Bky—26 to 63 inches; clay

***Characteristics of the Banida Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 4 to 12 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 9.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

**Typical profile**

Ap—0 to 6 inches; silty clay loam



Bw1—6 to 22 inches; silty clay  
Bw2—22 to 35 inches; silty clay  
Bk—35 to 64 inches; silty clay

***Dissimilar Minor Components***

- Soils that have slopes of less than 4 percent or more than 12 percent—10 percent of the map unit
- Ant Flat soils on linear or convex slopes—5 percent of the map unit
- Pollynot soils on convex slopes—5 percent of the map unit

***Major Uses***

Nonirrigated cropland (fig. 13) and hayland

**106—Oxford-Banida complex, 12 to 30 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 90 to 105 days

***Map Unit Composition***

Oxford and similar soils—50 percent



Figure 13.—Wheat growing on Oxford-Banida complex, 4 to 12 percent slopes, in the foreground. Oxford-Banida complex, 12 to 30 percent slopes, is on the rolling hills in the middle of photo. The snow-capped mountains in the background are in the Bannock Range of the Caribou National Forest.



## Soil Survey of Franklin County Area, Idaho

Banida and similar soils—35 percent  
Dissimilar minor components—15 percent

### ***Characteristics of the Oxford Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 12 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 9.4 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)

#### **Typical profile**

Ap—0 to 5 inches; silty clay  
Bw—5 to 26 inches; silty clay  
Bky—26 to 63 inches; clay

### ***Characteristics of the Banida Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 12 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 9.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e  
*Ecological site:* Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)

**Typical profile**

Ap—0 to 6 inches; silty clay loam  
Bw1—6 to 22 inches; silty clay  
Bw2—22 to 35 inches; silty clay  
Bk—35 to 64 inches; silty clay

***Dissimilar Minor Components***

- Soils that have slopes of less than 12 percent or more than 30 percent—5 percent of the map unit
- Broadhead soils in draws—5 percent of the map unit
- Ant Flat soils on concave slopes—3 percent of the map unit
- Collinston soils on toeslopes—2 percent of the map unit

***Major Uses***

Nonirrigated cropland, hayland, and rangeland

**107—Oxford-Gullied land complex, 20 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,200 feet  
*Mean annual precipitation:* 15 to 18 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 90 to 105 days

***Map Unit Composition***

Oxford and similar soils—65 percent  
Gullied land—15 percent  
Dissimilar minor components—20 percent

***Characteristics of the Oxford Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 20 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 9.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 7e*

*Ecological site: Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)*

**Typical profile**

Ap—0 to 5 inches; silty clay

Bw—5 to 26 inches; silty clay

Bky—26 to 63 inches; clay

***Characteristics of the Gullied Land***

This miscellaneous land type occurs on lake terraces in the Riverdale area, north of Preston. It is characterized by an intricate network of eroding slopes and gullies that range from 5 to 20 feet in depth. Gullied land is in areas of very silty soils that formed in mixed lacustrine deposits. Most areas of this land support little or no vegetation. Small areas support basin big sagebrush, rabbitbrush, and wheatgrasses. Seeps support willows, Russian olive, and cottonwood trees.

**Typical profile**

H1—0 to 60 inches; stratified loam to silty clay loam

***Dissimilar Minor Components***

- Wet soils near seeps—5 percent of the map unit
- Preston soils on linear slopes—5 percent of the map unit
- Pollynot soils on toeslopes—5 percent of the map unit
- Banida soils on concave, north-facing slopes—5 percent of the map unit

***Major Use***

Rangeland

**108—Parkay-Povey complex, 30 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 6,000 to 7,200 feet

*Mean annual precipitation:* 18 to 26 inches

*Mean annual air temperature:* 37 to 40 degrees F

*Frost-free period:* 30 to 60 days

***Map Unit Composition***

Parkay and similar soils—45 percent

Povey and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Parkay Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northeast

*Range in aspect:* Northwest to east (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 30 to 60 percent

## Soil Survey of Franklin County Area, Idaho

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 6.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)

### Typical profile

Oi—0 to 1 inch; slightly decomposed plant material  
A1—1 to 3 inches; gravelly silt loam  
A2—3 to 12 inches; gravelly silt loam  
AB—12 to 21 inches; very gravelly silt loam  
Bt1—21 to 29 inches; very gravelly loam  
Bt2—29 to 47 inches; very gravelly clay loam  
R—47 to 57 inches; unweathered bedrock

### **Characteristics of the Povey Soil**

#### Setting

*Landform:* Mountain slopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* Northeast  
*Range in aspect:* Northwest to east (clockwise)

#### Properties and qualities

*Parent material:* Mixed alluvium and colluvium  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 6.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A—0 to 17 inches; gravelly silt loam  
Bw—17 to 38 inches; very cobbly loam  
C—38 to 60 inches; extremely gravelly sandy loam

### **Dissimilar Minor Components**

- Soils that have slopes of less than 30 percent or more than 60 percent—5 percent of the map unit
- Poorly drained soils near seeps and drainageways—5 percent of the map unit

- Rock outcrop on shoulders—5 percent of the map unit
- Polumar soils on convex slopes—5 percent of the map unit
- Northwater soils on concave slopes—5 percent of the map unit

***Major Use***

Rangeland

**109—Parleys silt loam, 0 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,700 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 100 to 130 days

***Map Unit Composition***

Parleys and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Parleys Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 2.0

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 2e

**Typical profile**

Ap—0 to 4 inches; silt loam

A—4 to 13 inches; silt loam

Bt—13 to 18 inches; silty clay loam

Bk1—18 to 35 inches; silty clay loam

Bk2—35 to 50 inches; silty clay loam

C—50 to 60 inches; silt loam

***Dissimilar Minor Components***

- Winwell soils in depressions—5 percent of the map unit
- Trenton soils in depressions and draws—5 percent of the map unit
- Pollynot soils on convex slopes—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

**110—Parleys silt loam, 4 to 8 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,700 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 100 to 130 days

***Map Unit Composition***

Parleys and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Parleys Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 4 to 8 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 2.0

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

*Land capability subclass (irrigated):* 3e

**Typical profile**

Ap—0 to 4 inches; silt loam

A—4 to 13 inches; silt loam

Bt—13 to 18 inches; silty clay loam

Bk1—18 to 35 inches; silty clay loam

Bk2—35 to 50 inches; silty clay loam

C—50 to 60 inches; silt loam

***Dissimilar Minor Components***

- Wheelon soils on convex slopes—10 percent of the map unit
- Winwell soils in depressions—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

**111—Parleys silt loam, wet, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 5,000 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 100 to 130 days

***Map Unit Composition***

Parleys and similar soils—90 percent

Dissimilar minor components—10 percent

***Characteristics of the Parleys, wet Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 48 to 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 2.0

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 2c

**Typical profile**

Ap—0 to 4 inches; silt loam

A—4 to 13 inches; silt loam

Bt—13 to 18 inches; silty clay loam

Bk1—18 to 35 inches; silty clay loam

Bk2—35 to 50 inches; silty clay loam

C—50 to 60 inches; silt loam



***Dissimilar Minor Components***

- Welby soils on convex slopes—5 percent of the map unit
- Ant Flat soils on linear slopes—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and pasture

**112—Pavohroo-Sedgway-Toponce complex, 20 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 6,000 to 6,900 feet

*Mean annual precipitation:* 25 to 28 inches

*Mean annual air temperature:* 37 to 39 degrees F

*Frost-free period:* 30 to 50 days

***Map Unit Composition***

Pavohroo and similar soils—30 percent

Sedgway and similar soils—30 percent

Toponce and similar soils—20 percent

Dissimilar minor components—20 percent

***Characteristics of the Pavohroo Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)

**Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

Oe—1 to 3 inches; moderately decomposed plant material

A1—3 to 6 inches; silt loam

## Soil Survey of Franklin County Area, Idaho

A2—6 to 29 inches; silt loam

Bw—29 to 63 inches; stony loam

### ***Characteristics of the Sedgway Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 20 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)

#### **Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

Oe—1 to 2 inches; moderately decomposed plant material

A1—2 to 7 inches; gravelly silt loam

A2—7 to 23 inches; very cobbly loam

Bt—23 to 62 inches; very cobbly clay loam

### ***Characteristics of the Toponce Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 20 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Moist Mountain Loam 20+ Potr5 (R013XY016ID)

**Typical profile**

A1—0 to 3 inches; silt loam

A2—3 to 14 inches; silty clay loam

Bt—14 to 60 inches; clay

***Dissimilar Minor Components***

- Aquolls—5 percent of the map unit
- Camelback soils on south- and west-facing slopes—5 percent of the map unit
- Vitale soils on linear or convex slopes—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—3 percent of the map unit
- Rock outcrop on shoulders—2 percent of the map unit

***Major Use***

Forest land

**113—Picabo-Thatcherflats complex, 0 to 1 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys and plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 43 to 45 degrees F

*Frost-free period:* 80 to 90 days

***Map Unit Composition***

Picabo and similar soils—45 percent

Thatcherflats and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Picabo Soil***

**Setting**

*Landform:* Flood plains and stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 24 to 48 inches

## Soil Survey of Franklin County Area, Idaho

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 19.0

*Available water capacity (entire profile):* Very high (about 13.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3w

*Land capability subclass (irrigated):* 3w

*Ecological site:* Semiwet Saline Meadow (R028AY001ID)

### Typical profile

Ak—0 to 4 inches; silt loam

ABk—4 to 16 inches; silt loam

Bk1—16 to 45 inches; silt loam

Bk2—45 to 51 inches; silt loam

Bkg—51 to 65 inches; silt loam

### Characteristics of the Thatcherflats Soil

#### Setting

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* North

*Range in aspect:* All aspects

#### Properties and qualities

*Parent material:* Silty alluvium

*Slope:* 0 to 1 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 36 to 48 inches

*Salinity (maximum):* Slightly saline (about 6.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 83.0

*Available water capacity (entire profile):* High (about 10.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4s

*Land capability subclass (irrigated):* 4s

*Ecological site:* Alkali Flats 8-12 Save4/elel5 (R028AY011ID)

### Typical profile

A—0 to 4 inches; silt loam

Btn—4 to 16 inches; silty clay loam

Btkn—16 to 61 inches; silty clay loam

### Dissimilar Minor Components

- Downata soils—10 percent of the map unit
- Bear Lake soils—10 percent of the map unit
- Parleys soils on high terraces—5 percent of the map unit

### Major Uses

Irrigated cropland, pasture, and rangeland

## **114—Pits, gravel**

### ***Map Unit Composition***

Pits, gravel—100 percent

### ***Characteristics of Pits, Gravel***

These are open excavations in which the soil and part of the underlying sand, gravel, and cobbles have been removed. This unit is generally on terraces created by the ancient Bonneville Flood. The underlying material supports very little, if any, vegetation.

### **Typical profile**

H1—0 to 60 inches; gravel, cobbles

## **115—Pollynot gravelly loam, 4 to 12 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,600 to 5,100 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 100 to 120 days

### ***Map Unit Composition***

Pollynot and similar soils—75 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Pollynot Soil***

### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 7.0

*Available water capacity (entire profile):* High (about 10.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

### **Typical profile**

A1—0 to 9 inches; silt loam

A2—9 to 13 inches; silt loam  
AB—13 to 15 inches; silt loam  
Bt—15 to 26 inches; silty clay loam  
Bk—26 to 44 inches; silt loam  
2C—44 to 61 inches; loamy fine sand

***Dissimilar Minor Components***

- Cloudless soils on linear or convex slopes—10 percent of the map unit
- Ant Flat soils on linear slopes—5 percent
- Soils that have slopes of less than 4 percent or more than 12 percent—5 percent of the map unit
- Hades soils on concave slopes—5 percent of the map unit

***Major Use***

Nonirrigated cropland

**116—Pollynot silt loam, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,000 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 100 to 120 days

***Map Unit Composition***

Pollynot and similar soils—75 percent  
Dissimilar minor components—25 percent

***Characteristics of the Pollynot Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* North  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 7.0  
*Available water capacity (entire profile):* High (about 10.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 2c

**Typical profile**

A1—0 to 9 inches; silt loam  
A2—9 to 13 inches; silt loam  
AB—13 to 15 inches; silt loam  
Bt—15 to 26 inches; silty clay loam  
Bk—26 to 44 inches; silt loam  
2C—44 to 61 inches; loamy fine sand

***Dissimilar Minor Components***

- Banida soils on slightly convex slopes—10 percent of the map unit
- Ant Flat soils on concave slopes—10 percent of the map unit
- Broadhead soils in depressions—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland and hayland

**117—Pollynot silt loam, 2 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,000 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 100 to 120 days

***Map Unit Composition***

Pollynot and similar soils—75 percent  
Dissimilar minor components—25 percent

***Characteristics of the Pollynot Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southeast  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 2 to 4 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 7.0  
*Available water capacity (entire profile):* High (about 10.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 3e



**Typical profile**

A1—0 to 9 inches; silt loam  
A2—9 to 13 inches; silt loam  
AB—13 to 15 inches; silt loam  
Bt—15 to 26 inches; silty clay loam  
Bk—26 to 44 inches; silt loam  
2C—44 to 61 inches; loamy fine sand

***Dissimilar Minor Components***

- Ant Flat soils on concave slopes—10 percent of the map unit
- Oxford soils on convex slopes—5 percent of the map unit
- Broadhead soils in depressions—5 percent of the map unit
- Banida soils on convex slopes—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland and hayland

**118—Pollynot silt loam, 4 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,100 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 100 to 120 days

***Map Unit Composition***

Pollynot and similar soils—75 percent  
Dissimilar minor components—25 percent

***Characteristics of the Pollynot Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Northeast  
*Range in aspect:* Northwest to southeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 4 to 20 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 7.0  
*Available water capacity (entire profile):* High (about 10.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

**Typical profile**

- A1—0 to 9 inches; silt loam
- A2—9 to 13 inches; silt loam
- AB—13 to 15 inches; silt loam
- Bt—15 to 26 inches; silty clay loam
- Bk—26 to 44 inches; silt loam
- 2C—44 to 61 inches; loamy fine sand

***Dissimilar Minor Components***

- Ant Flat soils on concave slopes—10 percent of the map unit
- Banida soils on convex slopes—5 percent of the map unit
- Broadhead soils in depressions—5 percent of the map unit
- Oxford soils on convex slopes—5 percent of the map unit

***Major Use***

Nonirrigated cropland

**119—Polumar-Ireland complex, 30 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 47 and 13

*Elevation:* 5,700 to 6,400 feet

*Mean annual precipitation:* 17 to 20 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 60 to 85 days

***Map Unit Composition***

Polumar and similar soils—45 percent

Ireland and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Polumar Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northwest

*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Colluvium and residuum derived from limestone

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Low (about 4.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 7s*

*Ecological site: Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)*

**Typical profile**

A1—0 to 6 inches; gravelly silt loam

A2—6 to 11 inches; gravelly silt loam

A3—11 to 18 inches; very cobbly silt loam

Bk—18 to 22 inches; very cobbly silt loam

Bkq—22 to 46 inches; extremely cobbly loam

R—46 to 56 inches; unweathered bedrock

***Characteristics of the Ireland Soil***

**Setting**

*Landform: Mountain slopes*

*Down-slope shape: Convex*

*Across-slope shape: Convex*

*Representative aspect: Northwest*

*Range in aspect: Southwest to northeast (clockwise)*

**Properties and qualities**

*Parent material: Mixed alluvium*

*Slope: 30 to 60 percent*

*Depth to a restrictive feature: 20 to 40 inches to lithic bedrock*

*Drainage class: Well drained*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high*

*Flooding: None*

*Ponding: None*

*Seasonal high water table (minimum depth): More than 72 inches*

*Salinity (maximum): Nonsaline*

*Sodicity (maximum): Sodium adsorption ratio of about 3.0*

*Available water capacity (entire profile): Very low (about 2.0 inches)*

**Interpretive groups**

*Land capability subclass (nonirrigated): 7s*

*Ecological site: Steep Slope 16-22 Artv/pssp6 (R013XY003ID)*

**Typical profile**

A1—0 to 2 inches; very cobbly loam

A2—2 to 7 inches; gravelly loam

Bk1—7 to 14 inches; very gravelly loam

Bk2—14 to 23 inches; extremely cobbly sandy loam

R—23 to 33 inches; unweathered bedrock

***Dissimilar Minor Components***

- Ricrest soils on concave slopes—10 percent of the map unit
- Parkay soils on concave, north-facing slopes—5 percent of the map unit
- Hondoho soils on convex slopes—5 percent of the map unit
- Soils that have slopes of less than 30 percent or more than 60 percent—2 percent of the map unit
- Robin soils on concave slopes—2 percent of the map unit
- Rock outcrop on shoulders—1 percent of the map unit

***Major Use***

Rangeland

## **120—Polumar-Sprollo-Ireland complex, 40 to 70 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,600 to 6,700 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 60 to 85 days

### ***Map Unit Composition***

Polumar and similar soils—30 percent

Sprollo and similar soils—30 percent

Ireland and similar soils—20 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Polumar Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Northeast

*Range in aspect:* Northwest to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Colluvium and residuum derived from limestone

*Slope:* 40 to 70 percent

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Low (about 4.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

#### **Typical profile**

A1—0 to 6 inches; gravelly silt loam

A2—6 to 11 inches; gravelly silt loam

A3—11 to 18 inches; very cobbly silt loam

Bk—18 to 22 inches; very cobbly silt loam

Bkq—22 to 46 inches; extremely cobbly loam

R—46 to 56 inches; unweathered bedrock

### ***Characteristics of the Sprollo Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

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*Representative aspect:* Northeast

*Range in aspect:* Northwest to southeast (clockwise)

### Properties and qualities

*Parent material:* Alluvium and residuum derived from limestone

*Slope:* 40 to 70 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A—0 to 3 inches; gravelly silt loam

Bw—3 to 14 inches; gravelly silt loam

Bk—14 to 39 inches; very cobbly silt loam

R—39 to 49 inches; unweathered bedrock

## Characteristics of the Ireland Soil

### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northeast

*Range in aspect:* Northwest to southeast (clockwise)

### Properties and qualities

*Parent material:* Mixed alluvium

*Slope:* 40 to 70 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Very low (about 2.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A1—0 to 2 inches; very cobbly loam

A2—2 to 7 inches; gravelly loam

Bk1—7 to 14 inches; very gravelly loam

Bk2—14 to 23 inches; extremely cobbly sandy loam

R—23 to 33 inches; unweathered bedrock

***Dissimilar Minor Components***

- Northwater soils on concave, north-facing slopes—5 percent of the map unit
- Hondoho soils on linear or slightly convex slopes—5 percent of the map unit
- Soils that have slopes of less than 40 percent or more than 70 percent—3 percent of the map unit
- Rock outcrop on shoulders—3 percent of the map unit
- Parkay soils on concave, north-facing slopes—2 percent of the map unit
- Hymas soils on ridges—2 percent of the map unit

***Major Use***

Rangeland

**121—Povey-Hades-Hondoho complex, 10 to 50 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,700 to 6,200 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 37 to 43 degrees F

*Frost-free period:* 30 to 90 days

***Map Unit Composition***

Povey and similar soils—35 percent

Hades and similar soils—30 percent

Hondoho and similar soils—15 percent

Dissimilar minor components—20 percent

***Characteristics of the Povey Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northwest

*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 10 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Mountain Loam 18-22 Acsag2/artvr/pssp6 (R047XY009ID)

**Typical profile**

A—0 to 17 inches; gravelly silt loam  
Bw—17 to 38 inches; very cobbly loam  
C—38 to 60 inches; extremely gravelly sandy loam

***Characteristics of the Hades Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Northwest  
*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 10 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e  
*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

**Typical profile**

Ap—0 to 5 inches; silt loam  
Bt—5 to 60 inches; gravelly silty clay loam

***Characteristics of the Hondoho Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Northwest  
*Range in aspect:* Southwest to northeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 10 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 6.7 inches)



**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

**Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

***Dissimilar Minor Components***

- Poorly drained soils near seeps and in drainageways—5 percent of the map unit
- Rock outcrop on shoulders—5 percent of the map unit
- Ireland soils on convex, east- and southeast-facing slopes—5 percent of the map unit
- Hymas soils on concave, north-facing slopes—5 percent of the map unit

***Major Use***

Rangeland

**122—Povey-Parkay complex, 30 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 6,000 to 7,500 feet

*Mean annual precipitation:* 18 to 26 inches

*Mean annual air temperature:* 37 to 40 degrees F

*Frost-free period:* 30 to 60 days

***Map Unit Composition***

Povey and similar soils—45 percent

Parkay and similar soils—30 percent

Dissimilar minor components—25 percent

***Characteristics of the Povey Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to southeast (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

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*Available water capacity (entire profile):* Moderate (about 6.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### **Typical profile**

A—0 to 17 inches; gravelly silt loam

Bw—17 to 38 inches; very cobbly loam

C—38 to 60 inches; extremely gravelly sandy loam

### ***Characteristics of the Parkay Soil***

### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northwest

*Range in aspect:* Southwest to northeast (clockwise)

### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)

### **Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

A1—1 to 3 inches; gravelly silt loam

A2—3 to 12 inches; gravelly silt loam

AB—12 to 21 inches; very gravelly silt loam

Bt1—21 to 29 inches; very gravelly loam

Bt2—29 to 47 inches; very gravelly clay loam

R—47 to 57 inches; unweathered bedrock

### ***Dissimilar Minor Components***

- Ireland soils on convex, east- and southeast-facing slopes—10 percent of the map unit
- Rock outcrop on shoulders—5 percent of the map unit
- Hondoho soils on concave slopes—5 percent of the map unit
- Hymas soils on concave, north-facing slopes—3 percent of the map unit
- Poorly drained soils near seeps and in drainageways—2 percent of the map unit

### ***Major Use***

Rangeland

## **123—Preston fine sand, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Preston and similar soils—90 percent

Dissimilar minor components—10 percent

### ***Characteristics of the Preston Soil***

#### **Setting**

*Landform:* Dunes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Sandy eolian material

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Low (about 4.9 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4s

*Land capability subclass (irrigated):* 4s

*Ecological site:* Sand 12-16 Putr2/achy (R028AY009ID)

#### **Typical profile**

Ap—0 to 8 inches; fine sand

A—8 to 15 inches; fine sand

C—15 to 65 inches; loamy fine sand

### ***Dissimilar Minor Components***

- Soils that have slopes of more than 2 percent—5 percent of the map unit
- Soils that are on concave slopes and are noncalcareous—5 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, rangeland, and building site development

## **124—Preston fine sand, 2 to 6 percent slopes**

### ***Map Unit Setting***

*General landscape:* Plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Preston and similar soils—90 percent

Dissimilar minor components—10 percent

### ***Characteristics of the Preston Soil***

#### **Setting**

*Landform:* Dunes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Sandy eolian material

*Slope:* 2 to 6 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Low (about 4.9 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4s

*Land capability subclass (irrigated):* 4e

*Ecological site:* Sand 12-16 Putr2/achy (R028AY009ID)

#### **Typical profile**

Ap—0 to 8 inches; fine sand

A—8 to 15 inches; fine sand

C—15 to 65 inches; loamy fine sand

### ***Dissimilar Minor Components***

- Soils that are on concave slopes and are noncalcareous—5 percent of the map unit
- Soils that have slopes of less than 2 percent or more than 6 percent—5 percent of the map unit

### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, rangeland (fig. 14), and building site development



Figure 14.—Rangeland in an area of Preston fine sand, 2 to 6 percent slopes.

## **125—Preston loamy sand, 6 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Preston and similar soils—85 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Preston Soil***

#### **Setting**

*Landform:* Dunes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Sandy eolian material

*Slope:* 6 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

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*Drainage class:* Excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Low (about 4.9 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Land capability subclass (irrigated):* 6e

*Ecological site:* Sand 12-16 Putr2/achy (R028AY009ID)

### **Typical profile**

Ap—0 to 8 inches; fine sand

A—8 to 15 inches; fine sand

C—15 to 65 inches; loamy fine sand

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 6 percent or more than 30 percent—5 percent of the map unit
- Soils that are noncalcareous—5 percent of the map unit
- Soils that are on convex slopes and are calcareous throughout—3 percent of the map unit
- Poorly drained soils near seeps—2 percent of the map unit

### ***Major Uses***

Nonirrigated cropland, hayland, pasture, and rangeland

## **126—Preston-Xerorthents complex, 35 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Preston and similar soils—55 percent

Xerorthents and similar soils—20 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Preston Soil***

#### **Setting**

*Landform:* Dunes on hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)



**Properties and qualities**

*Parent material:* Sandy eolian material  
*Slope:* 35 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 1.0  
*Available water capacity (entire profile):* Low (about 4.9 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Sand 12-16 Putr2/achy (R028AY009ID)

**Typical profile**

Ap—0 to 8 inches; fine sand  
A—8 to 15 inches; fine sand  
C—15 to 65 inches; loamy fine sand

***Characteristics of the Xerorthents***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Southeast  
*Range in aspect:* Northeast to southwest (clockwise)

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 35 to 60 percent  
*Depth to a restrictive feature:* 10 to 60 inches to paralithic bedrock  
*Drainage class:* Somewhat excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 2.0  
*Available water capacity (entire profile):* Very low (about 1.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

**Typical profile**

A—0 to 3 inches; gravelly loam  
C—3 to 11 inches; extremely channery loam  
Cr—11 to 21 inches; weathered bedrock

***Dissimilar Minor Components***

- Soils that are on concave slopes and are noncalcareous—10 percent of the map unit
- Layton soils near seeps—5 percent of the map unit
- Hondee soils on convex, north-facing slopes—5 percent of the map unit



- Poorly drained soils near seeps—3 percent of the map unit
- Soils that are on convex slopes and are calcareous throughout—2 percent of the map unit

### ***Major Uses***

Pasture and rangeland

## **127—Ricrest gravelly silt loam, 4 to 12 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 13

*Elevation:* 4,700 to 5,000 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 42 to 46 degrees F

*Frost-free period:* 70 to 100 days

### ***Map Unit Composition***

Ricrest and similar soils—90 percent

Dissimilar minor components—10 percent

### ***Characteristics of the Ricrest Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 9.9 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e

#### **Typical profile**

Ap—0 to 6 inches; gravelly silt loam

Bw—6 to 20 inches; gravelly silt loam

Bk—20 to 60 inches; gravelly silt loam

### ***Dissimilar Minor Components***

- Winwell soils on concave slopes—5 percent of the map unit
- Soils that have more than 35 percent rock fragments throughout—5 percent of the map unit

**Major Use**

Nonirrigated cropland

**128—Sanyon-Staberg-Kabear complex, 20 to 50 percent slopes**

**Map Unit Setting**

*General landscape:* Hills

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 5,600 feet

*Mean annual precipitation:* 16 to 17 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

**Map Unit Composition**

Sanyon and similar soils—30 percent

Staberg and similar soils—30 percent

Kabear and similar soils—20 percent

Dissimilar minor components—20 percent

**Characteristics of the Sanyon Soil**

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* North

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Alluvium, colluvium, and residuum derived from tuff

*Slope:* 20 to 50 percent

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.5 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

**Typical profile**

A—0 to 5 inches; very gravelly loam

Bk—5 to 17 inches; extremely gravelly loam

R—17 to 27 inches; unweathered bedrock

**Characteristics of the Staberg Soil**

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

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*Across-slope shape:* Convex  
*Representative aspect:* North  
*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Alluvium, colluvium, and residuum derived from shale  
*Slope:* 20 to 50 percent  
*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 5.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### Typical profile

Ap—0 to 10 inches; loam  
BA—10 to 23 inches; gravelly loam  
Bt—23 to 33 inches; very cobbly loam  
C—33 to 38 inches; very cobbly sandy loam  
Cr—38 to 48 inches; weathered bedrock

## Characteristics of the Kabear Soil

### Setting

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* North  
*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Mixed alluvium  
*Slope:* 20 to 50 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 8.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

Ap—0 to 9 inches; very fine sandy loam  
Bw—9 to 45 inches; fine sandy loam  
C—45 to 60 inches; fine sandy loam

***Dissimilar Minor Components***

- Shallow soils that are on ridges and have a surface layer of very stony loam—10 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 50 percent—5 percent of the map unit
- Moderately deep soils that have a surface layer of very stony loam—5 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**129—Smidale very channery silt loam, 30 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 16 to 19 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 70 to 95 days

***Map Unit Composition***

Smidale and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Smidale Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Northeast

*Range in aspect:* Northwest to east (clockwise)

**Properties and qualities**

*Parent material:* Colluvium derived from shale

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 7.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

**Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 9 inches; very channery silt loam  
Bw1—9 to 26 inches; very channery silt loam  
Bw2—26 to 39 inches; very channery silt loam  
Bw3—39 to 46 inches; very channery silt loam  
Bw4—46 to 61 inches; very channery silt loam

***Dissimilar Minor Components***

- Sanyon soils on convex slopes and the summits of ridges—5 percent of the map unit
- Nyman soils near the summits of ridges—5 percent of the map unit
- Soils that have slopes of less than 30 percent or more than 60 percent—3 percent of the map unit
- Staberg soils on linear slopes—2 percent of the map unit

***Major Use***

Rangeland

**130—Smidale-Staberg complex, 20 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13  
*Elevation:* 4,600 to 6,000 feet  
*Mean annual precipitation:* 16 to 19 inches  
*Mean annual air temperature:* 41 to 45 degrees F  
*Frost-free period:* 70 to 95 days

***Map Unit Composition***

Smidale and similar soils—45 percent  
Staberg and similar soils—40 percent  
Dissimilar minor components—15 percent

***Characteristics of the Smidale Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* North  
*Range in aspect:* West to east (clockwise)

**Properties and qualities**

*Parent material:* Colluvium derived from shale  
*Slope:* 20 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 7.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 7e*

*Ecological site: Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)*

**Typical profile**

Oi—0 to 1 inch; slightly decomposed plant material

A—1 to 9 inches; very channery silt loam

Bw1—9 to 26 inches; very channery silt loam

Bw2—26 to 39 inches; very channery silt loam

Bw3—39 to 46 inches; very channery silt loam

Bw4—46 to 61 inches; very channery silt loam

***Characteristics of the Staberg Soil***

**Setting**

*Landform: Mountain slopes*

*Down-slope shape: Convex*

*Across-slope shape: Convex*

*Representative aspect: North*

*Range in aspect: West to east (clockwise)*

**Properties and qualities**

*Parent material: Alluvium, colluvium, and residuum derived from shale*

*Slope: 20 to 50 percent*

*Depth to a restrictive feature: 20 to 40 inches to paralithic bedrock*

*Drainage class: Well drained*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high*

*Flooding: None*

*Ponding: None*

*Seasonal high water table (minimum depth): More than 72 inches*

*Salinity (maximum): Nonsaline*

*Sodicity (maximum): Nonsodic*

*Available water capacity (entire profile): Low (about 5.0 inches)*

**Interpretive groups**

*Land capability subclass (nonirrigated): 6e*

*Ecological site: Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)*

**Typical profile**

Ap—0 to 10 inches; loam

BA—10 to 23 inches; gravelly loam

Bt—23 to 33 inches; very cobbly loam

C—33 to 38 inches; very cobbly sandy loam

Cr—38 to 48 inches; weathered bedrock

***Dissimilar Minor Components***

- Sanyon soils on convex slopes and the summits of ridges—5 percent of the map unit
- Nyman soils near the summits of ridges—5 percent of the map unit
- Soils that have slopes of less than 20 percent or more than 60 percent—3 percent of the map unit
- Softback soils on linear or convex slopes—2 percent of the map unit

***Major Use***

Rangeland

## **131—Sprollo-Hondoho complex, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,100 to 6,700 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 40 to 44 degrees F

*Frost-free period:* 60 to 95 days

### ***Map Unit Composition***

Sprollo and similar soils—45 percent

Hondoho and similar soils—35 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Sprollo Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Alluvium and residuum derived from limestone

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

#### **Typical profile**

A—0 to 3 inches; gravelly silt loam

Bw—3 to 14 inches; gravelly silt loam

Bk—14 to 39 inches; very cobbly silt loam

R—39 to 49 inches; unweathered bedrock

### ***Characteristics of the Hondoho Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)



**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 30 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

**Typical profile**

A—0 to 3 inches; stony silt loam

Bw—3 to 19 inches; very gravelly silt loam

Bk—19 to 60 inches; very gravelly loam

***Dissimilar Minor Components***

- Hymas soils on convex slopes—5 percent of the map unit
- Hades soils on concave slopes—5 percent of the map unit
- Bergquist soils on concave slopes—5 percent of the map unit
- Parkay soils on concave, north-facing slopes—2 percent of the map unit
- Ireland soils on convex slopes—2 percent of the map unit
- Rock outcrop on shoulders—1 percent of the map unit

***Major Use***

Rangeland

**132—Sprollo-Hymas complex, 30 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 5,200 to 6,300 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 65 to 85 days

***Map Unit Composition***

Sprollo and similar soils—40 percent

Hymas and similar soils—35 percent

Dissimilar minor components—25 percent

***Characteristics of the Sprollo Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* South

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*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Alluvium and residuum derived from limestone

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

### Typical profile

A—0 to 3 inches; gravelly silt loam

Bw—3 to 14 inches; gravelly silt loam

Bk—14 to 39 inches; very cobbly silt loam

R—39 to 49 inches; unweathered bedrock

## Characteristics of the Hymas Soil

### Setting

*Landform:* Mountain slopes

*Geomorphic position (two-dimensional):* Summits and backslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Alluvium and colluvium derived from limestone

*Slope:* 30 to 60 percent

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Very low (about 1.9 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Shallow Stony 12-16 Arar8/pssp6 (R013XY014ID)

### Typical profile

A1—0 to 3 inches; very gravelly silt loam

A2—3 to 14 inches; very gravelly silt loam

Bw—14 to 17 inches; extremely cobbly loam

R—17 to 27 inches; unweathered bedrock

***Dissimilar Minor Components***

- Lizdale soils on concave or linear, south-facing slopes—5 percent of the map unit
- Hondoho soils on concave, north-facing slopes—5 percent of the map unit
- Hades soils on concave slopes—5 percent of the map unit
- Arbore soils on convex slopes—5 percent of the map unit
- Ireland soils on convex slopes—3 percent of the map unit
- Rock outcrop on shoulders—2 percent of the map unit

***Major Use***

Rangeland

**133—Sterling gravelly loam, 0 to 4 percent slopes**

***Map Unit Setting***

*General landscape:* Alluvial plains and valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 5,000 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Sterling and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Sterling Soil***

**Setting**

*Landform:* Stream terraces and fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Alluvium derived from limestone

*Slope:* 0 to 4 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 2e

*Land capability subclass (irrigated):* 2e

*Ecological site:* Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)

**Typical profile**

A—0 to 8 inches; gravelly loam

Bk—8 to 66 inches; very gravelly loam

***Dissimilar Minor Components***

- Soils that have less than 35 percent rock fragments throughout—10 percent of the map unit
- Parleys soils on concave slopes—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, rangeland, and building site development

**134—Sterling gravelly loam, 4 to 10 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 5,000 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Sterling and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Sterling Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Alluvium derived from limestone

*Slope:* 4 to 10 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 2e

*Land capability subclass (irrigated):* 3e

*Ecological site:* Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)

**Typical profile**

A—0 to 8 inches; gravelly loam

Bk—8 to 66 inches; very gravelly loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 4 percent or more than 10 percent—5 percent of the map unit
- Soils that have less than 35 percent rock fragments throughout—5 percent of the map unit
- Xerorthents on backslopes—3 percent of the map unit
- Parleys soils on concave slopes—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and rangeland

**135—Sterling gravelly loam, 10 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 5,100 to 5,200 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Sterling and similar soils—90 percent

Dissimilar minor components—10 percent

***Characteristics of the Sterling Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

**Properties and qualities**

*Parent material:* Alluvium derived from limestone

*Slope:* 10 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6s

*Ecological site:* Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)

**Typical profile**

A—0 to 8 inches; gravelly loam

Bk—8 to 66 inches; very gravelly loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 10 percent or more than 20 percent—5 percent of the map unit
- Soils that have less than 35 percent rock fragments throughout—5 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**136—Sterling very gravelly loam, 20 to 60 percent slopes**

***Map Unit Setting***

*General landscape:* Alluvial plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 5,200 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Sterling and similar soils—85 percent

Dissimilar minor components—15 percent

***Characteristics of the Sterling Soil***

**Setting**

*Landform:* Fan remnants

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

**Properties and qualities**

*Parent material:* Alluvium derived from limestone

*Slope:* 20 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)

**Typical profile**

A—0 to 8 inches; gravelly loam

Bk—8 to 66 inches; very gravelly loam

***Dissimilar Minor Components***

- Soils that have slopes of less than 20 percent or more than 60 percent—10 percent of the map unit
- Soils that have less than 35 percent rock fragments throughout—5 percent of the map unit

***Major Use***

Rangeland

**137—Sterling-Parleys complex, 0 to 6 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 5,000 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Sterling and similar soils—50 percent

Parleys and similar soils—30 percent

Dissimilar minor components—20 percent

***Characteristics of the Sterling Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Northeast

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Alluvium derived from limestone

*Slope:* 0 to 6 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Low (about 5.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 2e

*Land capability subclass (irrigated):* 2e

**Typical profile**

A—0 to 8 inches; gravelly loam

Bk—8 to 66 inches; very gravelly loam



### ***Characteristics of the Parleys Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Northeast  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium  
*Slope:* 0 to 6 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 2.0  
*Available water capacity (entire profile):* High (about 12.0 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3e  
*Land capability subclass (irrigated):* 2e

#### **Typical profile**

Ap—0 to 4 inches; silt loam  
A—4 to 13 inches; silt loam  
Bt—13 to 18 inches; silty clay loam  
Bk1—18 to 35 inches; silty clay loam  
Bk2—35 to 50 inches; silty clay loam  
C—50 to 60 inches; silt loam

#### ***Dissimilar Minor Components***

- Wursten soils on linear or convex slopes—10 percent of the map unit
- Kidman soils on linear slopes—10 percent of the map unit

#### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

### **138—Thatcher-Bearhollow complex, 6 to 20 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Hills  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,200 to 5,600 feet  
*Mean annual precipitation:* 13 to 16 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 80 to 100 days

#### ***Map Unit Composition***

Thatcher and similar soils—45 percent

## Soil Survey of Franklin County Area, Idaho

Bearhollow and similar soils—35 percent  
Dissimilar minor components—20 percent

### ***Characteristics of the Thatcher Soil***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Northeast  
*Range in aspect:* Northwest to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium and lacustrine deposits  
*Slope:* 6 to 20 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

#### **Typical profile**

Ap—0 to 8 inches; loam  
Bt—8 to 29 inches; silty clay loam  
Bk1—29 to 58 inches; silt loam  
Bk2—58 to 60 inches; silt loam

### ***Characteristics of the Bearhollow Soil***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Northeast  
*Range in aspect:* Northwest to southeast (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 6 to 20 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Sodium adsorption ratio of about 7.0  
*Available water capacity (entire profile):* Moderate (about 7.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

**Typical profile**

Ap—0 to 4 inches; gravelly loam  
A—4 to 9 inches; gravelly loam  
Bk1—9 to 22 inches; gravelly loam  
Bk2—22 to 43 inches; gravelly loam  
Bk3—43 to 60 inches; gravelly loam

***Dissimilar Minor Components***

- Soils that are moderately deep to a duripan and are on west-facing slopes—5 percent of the map unit
- Searla soils on the north-facing backslopes of ravines—5 percent of the map unit
- Harroun soils on convex, south-facing slopes—5 percent of the map unit
- Cedarhill soils on south-facing slopes and shoulders—5 percent of the map unit

***Major Use***

Nonirrigated cropland

**139—Toponce-Broadhead association, 6 to 30 percent slopes**

***Map Unit Setting***

*General landscape:* Hills  
*Major land resource area (MLRA):* 13  
*Elevation:* 6,200 to 6,900 feet  
*Mean annual precipitation:* 18 to 28 inches  
*Mean annual air temperature:* 37 to 44 degrees F  
*Frost-free period:* 40 to 95 days

***Map Unit Composition***

Toponce and similar soils—50 percent  
Broadhead and similar soils—30 percent  
Dissimilar minor components—20 percent

***Characteristics of the Toponce Soil***

**Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Representative aspect:* West  
*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 6 to 30 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Moist Mountain Loam 20+ Potr5 (R013XY016ID)

**Typical profile**

A1—0 to 3 inches; silt loam

A2—3 to 14 inches; silty clay loam

Bt—14 to 60 inches; clay

***Characteristics of the Broadhead Soil***

**Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* South to north (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and colluvium

*Slope:* 6 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

**Typical profile**

Ap—0 to 7 inches; silt loam

Bt1—7 to 10 inches; silty clay loam

Bt2—10 to 60 inches; silty clay loam

***Dissimilar Minor Components***

- Yago soils on concave slopes—10 percent of the map unit
- Hades soils on toeslopes—5 percent of the map unit
- Sedgway soils on north-facing slopes—5 percent of the map unit

***Major Uses***

Nonirrigated cropland and rangeland

**140—Trenton-Battle Creek complex, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,800 feet

*Mean annual precipitation:* 15 to 16 inches

## Soil Survey of Franklin County Area, Idaho

*Mean annual air temperature:* 46 to 49 degrees F

*Frost-free period:* 120 to 130 days

### **Map Unit Composition**

Trenton and similar soils—50 percent

Battle Creek and similar soils—40 percent

Dissimilar minor components—10 percent

### **Characteristics of the Trenton Soil**

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 30 to 42 inches

*Salinity (maximum):* Slightly saline (about 5.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 29.0

*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Btn—8 to 32 inches; silty clay loam

Bk—32 to 46 inches; silty clay

C—46 to 60 inches; silty clay

### **Characteristics of the Battle Creek Soil**

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 5.0

*Available water capacity (entire profile):* High (about 10.7 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

**Typical profile**

Ap—0 to 8 inches; silty clay loam

AB—8 to 11 inches; silty clay

Bt—11 to 19 inches; silty clay

Btk—19 to 40 inches; silty clay

Bk—40 to 60 inches; silty clay

***Dissimilar Minor Components***

- Seasonally ponded, poorly drained or very poorly drained soils—5 percent of the map unit
- Soils that are on concave slopes and are strongly alkaline—5 percent of the map unit

***Major Uses***

Irrigated cropland, hayland, and pasture

**141—Trenton-Battle Creek complex, cool, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 4,800 feet

*Mean annual precipitation:* 15 to 16 inches

*Mean annual air temperature:* 46 to 49 degrees F

*Frost-free period:* 120 to 130 days

***Map Unit Composition***

Trenton and similar soils—50 percent

Battle Creek and similar soils—40 percent

Dissimilar minor components—10 percent

***Characteristics of the Trenton, Cool, Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

## Soil Survey of Franklin County Area, Idaho

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 30 to 42 inches

*Salinity (maximum):* Slightly saline (about 5.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 29.0

*Available water capacity (entire profile):* High (about 11.3 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Btn—8 to 32 inches; silty clay loam

Bk—32 to 46 inches; silty clay

C—46 to 60 inches; silty clay

### ***Characteristics of the Battle Creek, Cool, Soil***

### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* West

*Range in aspect:* All aspects

### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 42 to 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 5.0

*Available water capacity (entire profile):* High (about 10.7 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

### **Typical profile**

Ap—0 to 8 inches; silty clay loam

AB—8 to 11 inches; silty clay

Bt—11 to 19 inches; silty clay

Btk—19 to 40 inches; silty clay

Bk—40 to 60 inches; silty clay

### ***Dissimilar Minor Components***

- Aquolls—5 percent of the map unit
- Soils that are on concave slopes and are strongly alkaline—5 percent of the map unit

### ***Major Uses***

Irrigated cropland, hayland, and pasture



## **142—Trenton-Parleys complex, 0 to 2 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 120 to 130 days

### ***Map Unit Composition***

Trenton and similar soils—45 percent

Parleys and similar soils—35 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Trenton Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* About 30 to 42 inches

*Salinity (maximum):* Slightly saline (about 5.0 mmhos/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 29.0

*Available water capacity (entire profile):* High (about 11.3 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

#### **Typical profile**

Ap—0 to 8 inches; silty clay loam

Btn—8 to 32 inches; silty clay loam

Bk—32 to 46 inches; silty clay

C—46 to 60 inches; silty clay

### ***Characteristics of the Parleys Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Silty alluvium

## Soil Survey of Franklin County Area, Idaho

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 48 to 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 2.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c

*Land capability subclass (irrigated):* 2c

### **Typical profile**

Ap—0 to 4 inches; silt loam

A—4 to 13 inches; silt loam

Bt—13 to 18 inches; silty clay loam

Bk1—18 to 35 inches; silty clay loam

Bk2—35 to 50 inches; silty clay loam

C—50 to 60 inches; silt loam

### ***Dissimilar Minor Components***

- Aquolls—5 percent of the map unit
- Soils that have slopes of more than 2 percent—5 percent of the map unit
- Soils that are on concave slopes and are strongly alkaline—5 percent of the map unit
- Battle Creek soils—5 percent of the map unit

### ***Major Uses***

Irrigated cropland, hayland, and pasture

## **143—Valmar-Camelback-Hades complex, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 6,500 to 6,700 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 90 days

### ***Map Unit Composition***

Valmar and similar soils—40 percent

Camelback and similar soils—25 percent

Hades and similar soils—20 percent

Dissimilar minor components—15 percent

### ***Characteristics of the Valmar Soil***

### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

## Soil Survey of Franklin County Area, Idaho

*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 30 to 60 percent  
*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 2.8 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A—0 to 9 inches; very cobbly silt loam  
Bt—9 to 14 inches; very cobbly silt loam  
Bw—14 to 24 inches; extremely stony silt loam  
R—24 to 34 inches; unweathered bedrock

## Characteristics of the Camelback Soil

### Setting

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Moderate (about 7.2 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### Typical profile

A1—0 to 3 inches; very gravelly silt loam  
A2—3 to 14 inches; very gravelly silt loam  
Bt1—14 to 22 inches; very gravelly silt loam  
Bt2—22 to 32 inches; very gravelly silty clay loam

## Soil Survey of Franklin County Area, Idaho

Bt3—32 to 50 inches; very gravelly silt loam  
BC—50 to 61 inches; very gravelly loam

### ***Characteristics of the Hades Soil***

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 30 to 60 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* High (about 10.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

#### **Typical profile**

Ap—0 to 5 inches; silt loam  
Bt—5 to 60 inches; gravelly silty clay loam

### ***Dissimilar Minor Components***

- Shallow soils on the summits of ridges—5 percent of the map unit
- Soils that have less than 18 percent clay in the subsoil—5 percent of the map unit
- Soils that have slopes of less than 30 percent or more than 60 percent—2 percent of the map unit
- Cedarhill soils on south-facing slopes—2 percent of the map unit
- Rock outcrop on shoulders—1 percent of the map unit

### ***Major Use***

Rangeland

## **144—Vitale-Bergquist-Rock outcrop complex, 30 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 47 and 13  
*Elevation:* 5,300 to 6,300 feet  
*Mean annual precipitation:* 16 to 18 inches  
*Mean annual air temperature:* 42 to 46 degrees F  
*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Vitale and similar soils—40 percent  
Bergquist and similar soils—25 percent  
Rock outcrop—15 percent of the map unit  
Dissimilar minor components—20 percent

### **Characteristics of the Vitale Soil**

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 30 to 60 percent  
*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Very low (about 1.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

#### **Typical profile**

A1—0 to 1 inch; extremely stony loam  
A2—1 to 15 inches; very cobbly loam  
Bt—15 to 26 inches; extremely cobbly clay loam  
R—26 to 36 inches; unweathered bedrock

### **Characteristics of the Bergquist Soil**

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Representative aspect:* North  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 30 to 60 percent  
*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline

## Soil Survey of Franklin County Area, Idaho

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.5 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 16-22 Artv/pssp6 (R013XY003ID)

### **Typical profile**

A—0 to 5 inches; very gravelly loam

Bw—5 to 12 inches; very gravelly loam

C—12 to 54 inches; extremely gravelly sandy loam

R—54 to 64 inches; unweathered bedrock

### ***Characteristics of the Rock Outcrop***

Rock outcrop is a miscellaneous land type consisting of broad bands of exposed bedrock on ridgetops and shoulder slopes.

### **Typical profile**

R—0 to 60 inches; unweathered bedrock

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 30 percent or more than 60 percent—5 percent of the map unit
- Softback soils on concave slopes—5 percent of the map unit
- Soils that have more than 35 percent clay in the subsoil—5 percent of the map unit
- Foxol soils on ridges—5 percent of the map unit

### ***Major Use***

Rangeland

## **145—Vitale-Yeates Hollow-Northwater complex, 12 to 40 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 47 and 13

*Elevation:* 5,400 to 6,500 feet

*Mean annual precipitation:* 18 to 30 inches

*Mean annual air temperature:* 36 to 43 degrees F

*Frost-free period:* 30 to 80 days

### ***Map Unit Composition***

Vitale and similar soils—35 percent

Yeates Hollow and similar soils—25 percent

Northwater and similar soils—15 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Vitale Soil***

### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* North

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Mixed colluvium and residuum

*Slope:* 12 to 40 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

### Typical profile

A1—0 to 1 inch; extremely stony loam

A2—1 to 15 inches; very cobbly loam

Bt—15 to 26 inches; extremely cobbly clay loam

R—26 to 36 inches; unweathered bedrock

## ***Characteristics of the Yeates Hollow Soil***

### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* North

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.5 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

### Typical profile

A—0 to 8 inches; cobbly silt loam

BA—8 to 16 inches; extremely cobbly loam

Bt1—16 to 19 inches; extremely cobbly clay loam



Bt2—19 to 29 inches; very cobbly clay  
Bt3—29 to 60 inches; very gravelly clay loam

***Characteristics of the Northwater Soil***

**Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Representative aspect:* North  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 20 to 40 percent  
*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline  
*Sodicity (maximum):* Nonsodic  
*Available water capacity (entire profile):* Low (about 3.6 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 6e  
*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

**Typical profile**

A—0 to 12 inches; gravelly very fine sandy loam  
Bt—12 to 28 inches; extremely gravelly loam  
BC—28 to 46 inches; extremely gravelly loam  
R—46 to 56 inches; unweathered bedrock

***Dissimilar Minor Components***

- Manila soils on concave slopes—10 percent of the map unit
- Rock outcrop—5 percent of the map unit
- Foxol soils on ridges—5 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 40 percent—3 percent of the map unit
- Soils that are near seeps and are poorly drained—2 percent of the map unit

***Major Use***

Rangeland

**146—Welby silt loam, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,100 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 47 to 49 degrees F  
*Frost-free period:* 110 to 130 days

### **Map Unit Composition**

Welby and similar soils—90 percent  
Dissimilar minor components—10 percent

### **Characteristics of the Welby Soil**

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southeast  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 13.0  
*Available water capacity (entire profile):* High (about 10.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 2c

#### **Typical profile**

A—0 to 12 inches; silt loam  
Bk—12 to 40 inches; silt loam  
C—40 to 60 inches; fine sandy loam

### **Dissimilar Minor Components**

- Trenton soils in depressions—5 percent of the map unit
- Maplecreek soils on slightly concave slopes—5 percent of the map unit

### **Major Uses**

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

## **147—Welby silt loam, 2 to 4 percent slopes**

### **Map Unit Setting**

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,700 to 5,100 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 47 to 49 degrees F  
*Frost-free period:* 110 to 130 days

### **Map Unit Composition**

Welby and similar soils—90 percent  
Dissimilar minor components—10 percent

### ***Characteristics of the Welby Soil***

#### **Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 2 to 4 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 13.0  
*Available water capacity (entire profile):* High (about 10.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 2c

#### **Typical profile**

A—0 to 12 inches; silt loam  
Bk—12 to 40 inches; silt loam  
C—40 to 60 inches; fine sandy loam

#### ***Dissimilar Minor Components***

- Maplecreek soils on slightly concave slopes—5 percent of the map unit
- Trenton soils in depressions—5 percent of the map unit

#### ***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

## **148—Welby silt loam, wet, 0 to 2 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,400 to 5,100 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 47 to 49 degrees F  
*Frost-free period:* 110 to 130 days

#### ***Map Unit Composition***

Welby and similar soils—85 percent  
Dissimilar minor components—15 percent

### ***Characteristics of the Welby Soil***

#### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* South  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 48 to 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 5.0  
*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3c  
*Land capability subclass (irrigated):* 2c

**Typical profile**

A—0 to 12 inches; silt loam  
Bk—12 to 40 inches; silt loam  
C—40 to 60 inches; fine sandy loam

***Dissimilar Minor Components***

- Maplecreek soils on slightly concave slopes—5 percent of the map unit
- Trenton soils in depressions—5 percent of the map unit
- Soils that are near seeps and are poorly drained—5 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, pasture, and building site development

**149—Wheelon-Collinston complex, 4 to 12 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,800 to 5,200 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Wheelon and similar soils—40 percent  
Collinston and similar soils—40 percent  
Dissimilar minor components—20 percent

***Characteristics of the Wheelon Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* East

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Lacustrine deposits

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 8.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 3e

### Typical profile

Ap—0 to 6 inches; silt loam

Bk—6 to 60 inches; silt loam

### ***Characteristics of the Collinston Soil***

### Setting

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

### Properties and qualities

*Parent material:* Silty alluvium and lacustrine deposits

*Slope:* 4 to 12 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

### Typical profile

Ap—0 to 8 inches; silt loam

Bk1—8 to 12 inches; silt loam

Bk2—12 to 60 inches; silt loam

### ***Dissimilar Minor Components***

- Winwell soils on linear slopes at the lower elevations—10 percent of the map unit
- Huffman soils on convex slopes—5 percent of the map unit
- Soils that have slopes of less than 4 percent or more than 12 percent—3 percent of the map unit

- Parleys soils on linear or concave slopes—2 percent of the map unit

***Major Use***

Nonirrigated cropland

**150—Wheelon-Collinston complex, 12 to 20 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,900 to 5,200 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 130 days

***Map Unit Composition***

Wheelon and similar soils—40 percent

Collinston and similar soils—35 percent

Dissimilar minor components—25 percent

***Characteristics of the Wheelon Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 8.0

*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

**Typical profile**

Ap—0 to 6 inches; silt loam

Bk—6 to 60 inches; silt loam

***Characteristics of the Collinston Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Concave

*Across-slope shape:* Linear

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

### **Properties and qualities**

*Parent material:* Silty alluvium and lacustrine deposits

*Slope:* 12 to 20 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

### **Typical profile**

Ap—0 to 8 inches; silt loam

Bk1—8 to 12 inches; silt loam

Bk2—12 to 60 inches; silt loam

### ***Dissimilar Minor Components***

- Soils that have high hydraulic conductivity and that are calcareous—10 percent of the map unit
- Huffman soils on convex slopes—10 percent of the map unit
- Soils that are on terrace risers and are moderately deep to bedrock—5 percent of the map unit

### ***Major Use***

Nonirrigated cropland

## **151—Wheelon-Collinston complex, 20 to 60 percent slopes**

### ***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,800 to 5,200 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 130 days

### ***Map Unit Composition***

Wheelon and similar soils—45 percent

Collinston and similar soils—30 percent

Dissimilar minor components—25 percent

### ***Characteristics of the Wheelon Soil***

### **Setting**

*Landform:* Lake terraces

*Down-slope shape:* Convex



## Soil Survey of Franklin County Area, Idaho

*Across-slope shape:* Convex

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

### Properties and qualities

*Parent material:* Lacustrine deposits

*Slope:* 20 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 8.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)

### Typical profile

Ap—0 to 6 inches; silt loam

Bk—6 to 60 inches; silt loam

### **Characteristics of the Collinston Soil**

### Setting

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

### Properties and qualities

*Parent material:* Silty alluvium and lacustrine deposits

*Slope:* 20 to 60 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* High (about 12.0 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)

### Typical profile

Ap—0 to 8 inches; silt loam

Bk1—8 to 12 inches; silt loam

Bk2—12 to 60 inches; silt loam

### **Dissimilar Minor Components**

- Sandy soils on narrow interfluvies—10 percent of the map unit

- Lanoak soils on concave slopes—10 percent of the map unit
- Oxford soils on convex slopes at the higher elevations—5 percent of the map unit

**Major Use**

Rangeland

**152—Windernot-Lewnot-Stinkcreek complex, 0 to 2 percent slopes**

**Map Unit Setting**

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 4,400 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 100 to 130 days

**Map Unit Composition**

Windernot and similar soils—40 percent

Lewnot and similar soils—20 percent

Stinkcreek and similar soils—15 percent

Dissimilar minor components—25 percent

**Characteristics of the Windernot Soil**

**Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 54 to 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 1.0

*Available water capacity (entire profile):* Low (about 3.1 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 3s

*Land capability subclass (irrigated):* 3s

*Ecological site:* Loamy 11-13 Artr/pssp6 (R028AY024ID)

**Typical profile**

A1—0 to 6 inches; gravelly sandy loam

A2—6 to 18 inches; gravelly sandy loam

Bk—18 to 23 inches; very gravelly sandy loam

2Ck—23 to 60 inches; extremely gravelly sand

### ***Characteristics of the Lewnot Soil***

#### **Setting**

*Landform:* Stream terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 24 to 42 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* Moderate (about 6.7 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 3w  
*Land capability subclass (irrigated):* 3w  
*Ecological site:* Semiwet Meadow (R028AY029ID)

#### **Typical profile**

Ap—0 to 10 inches; fine sandy loam  
Bw—10 to 38 inches; stratified fine sandy loam to loam to silt loam  
2C—38 to 60 inches; very gravelly loamy sand

### ***Characteristics of the Stinkcreek Soil***

#### **Setting**

*Landform:* Stream terraces and flood plains  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Representative aspect:* Southwest  
*Range in aspect:* All aspects

#### **Properties and qualities**

*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* Rare  
*Ponding:* None  
*Seasonal high water table (minimum depth):* About 0 to 18 inches  
*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 22.0  
*Available water capacity (entire profile):* Low (about 5.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 5w  
*Land capability subclass (irrigated):* 5w  
*Ecological site:* Wet Meadow (R028AY028ID)

**Typical profile**

- A—0 to 11 inches; silty clay loam
- Bk—11 to 21 inches; silty clay loam
- 2C1—21 to 40 inches; very gravelly loamy sand
- 2C2—40 to 60 inches; extremely gravelly sand

***Dissimilar Minor Components***

- Soils that have less than 35 percent rock fragments throughout—10 percent of the map unit
- Kidman soils on terrace risers—5 percent of the map unit
- Soils that are near seeps and are poorly drained—3 percent of the map unit
- Lando soils on concave slopes—3 percent of the map unit
- Parley soils on toeslopes below terrace risers—2 percent of the map unit
- Layton soils on slightly convex slopes on the higher terraces—2 percent of the map unit

***Major Uses***

Irrigated cropland, hayland, pasture, and rangeland

**153—Winn silt loam, 0 to 3 percent slopes**

***Map Unit Setting***

*General landscape:* Valleys

*Major land resource area (MLRA):* 28A

*Elevation:* 5,100 to 5,200 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 46 degrees F

*Frost-free period:* 120 to 130 days

***Map Unit Composition***

Winn and similar soils—90 percent

Dissimilar minor components—10 percent

***Characteristics of the Winn Soil***

**Setting**

*Landform:* Stream terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 0 to 3 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* Rare

*Ponding:* None

*Seasonal high water table (minimum depth):* About 30 to 42 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 3w*

*Land capability subclass (irrigated): 3w*

**Typical profile**

A—0 to 13 inches; silt loam

C—13 to 60 inches; loam

***Dissimilar Minor Components***

- Poorly drained soils that have a water table within a depth of 18 inches—5 percent of the map unit
- Soils that are on convex slopes and have more than 10 percent gravel—5 percent of the map unit

***Major Use***

Irrigated cropland

**154—Winwell silty clay loam, 0 to 2 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains

*Major land resource area (MLRA):* 28A

*Elevation:* 4,700 to 5,100 feet

*Mean annual precipitation:* 15 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 115 to 130 days

***Map Unit Composition***

Winwell and similar soils—80 percent

Dissimilar minor components—20 percent

***Characteristics of the Winwell Soil***

**Setting**

*Landform:* Lake terraces

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits

*Slope:* 0 to 2 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)

*Sodicity (maximum):* Sodium adsorption ratio of about 5.0

*Available water capacity (entire profile):* High (about 11.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 2c*

*Land capability subclass (irrigated): 2c*

**Typical profile**

Ap—0 to 10 inches; silty clay loam  
Bt—10 to 22 inches; silty clay  
Btk—22 to 30 inches; silty clay  
Bk—30 to 51 inches; silty clay loam  
C—51 to 60 inches; silt loam

***Dissimilar Minor Components***

- Soils that have a very gravelly horizon in the subsoil—10 percent of the map unit
- Parleys soils on linear or concave slopes—5 percent of the map unit
- Soils that have slopes of more than 2 percent—3 percent of the map unit
- Soils that are in depressions and are strongly alkaline—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland, hayland, and building site development

**155—Winwell-Collinston complex, 2 to 8 percent slopes**

***Map Unit Setting***

*General landscape:* Lake plains  
*Major land resource area (MLRA):* 28A  
*Elevation:* 4,500 to 5,100 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 115 to 130 days

***Map Unit Composition***

Winwell and similar soils—45 percent  
Collinston and similar soils—35 percent  
Dissimilar minor components—20 percent

***Characteristics of the Winwell Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* East  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Lacustrine deposits  
*Slope:* 2 to 8 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 5.0  
*Available water capacity (entire profile):* High (about 11.3 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 2e

*Land capability subclass (irrigated): 3e*

**Typical profile**

Ap—0 to 10 inches; silty clay loam  
Bt—10 to 22 inches; silty clay  
Btk—22 to 30 inches; silty clay  
Bk—30 to 51 inches; silty clay loam  
C—51 to 60 inches; silt loam

***Characteristics of the Collinston Soil***

**Setting**

*Landform:* Lake terraces  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Representative aspect:* East  
*Range in aspect:* All aspects

**Properties and qualities**

*Parent material:* Silty alluvium and lacustrine deposits  
*Slope:* 2 to 8 percent  
*Restrictive feature:* None within a depth of 60 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 3.0  
*Available water capacity (entire profile):* High (about 12.0 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated): 3e*  
*Land capability subclass (irrigated): 3e*

**Typical profile**

Ap—0 to 8 inches; silt loam  
Bk1—8 to 12 inches; silt loam  
Bk2—12 to 60 inches; silt loam

***Dissimilar Minor Components***

- Wheelon soils on convex slopes—10 percent of the map unit
- Parleys soils on all aspects—5 percent of the map unit
- Soils that have slopes of less than 2 percent or more than 8 percent—3 percent of the map unit
- Deep soils underlain by consolidated lacustrine deposits—2 percent of the map unit

***Major Uses***

Irrigated and nonirrigated cropland and hayland

**156—Wormcreek-Copenhagen complex, 15 to 55 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 13



## Soil Survey of Franklin County Area, Idaho

*Elevation:* 4,800 to 6,500 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 43 to 45 degrees F

*Frost-free period:* 70 to 95 days

### **Map Unit Composition**

Wormcreek and similar soils—50 percent

Copenhagen and similar soils—30 percent

Dissimilar minor components—20 percent

### **Characteristics of the Wormcreek Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Volcanic ash and alluvium, colluvium, and residuum derived from tuff

*Slope:* 15 to 55 percent

*Depth to a restrictive feature:* 40 to 60 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 5.2 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

#### **Typical profile**

A—0 to 9 inches; gravelly clay loam

Bk1—9 to 22 inches; very gravelly clay loam

Bk2—22 to 48 inches; extremely cobbly loam

Cr—48 to 58 inches; weathered bedrock

### **Characteristics of the Copenhagen Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Representative aspect:* Southeast

*Range in aspect:* Northeast to southwest (clockwise)

#### **Properties and qualities**

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 15 to 55 percent

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.2 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

**Typical profile**

A—0 to 7 inches; very channery loam

Bw—7 to 13 inches; very channery loam

R—13 to 23 inches; unweathered bedrock

***Dissimilar Minor Components***

- Soils that are on convex slopes and do not have a thick dark surface horizon—10 percent of the map unit
- Moderately deep soils on convex slopes—10 percent of the map unit

***Major Use***

Rangeland

**157—Wormcreek-Lonigan complex, 15 to 55 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,800 to 6,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 43 to 45 degrees F

*Frost-free period:* 70 to 95 days

***Map Unit Composition***

Wormcreek and similar soils—45 percent

Lonigan and similar soils—35 percent

Dissimilar minor components—20 percent

***Characteristics of the Wormcreek Soil***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

**Properties and qualities**

*Parent material:* Volcanic ash and alluvium, colluvium, and residuum derived from tuff

*Slope:* 20 to 55 percent

*Depth to a restrictive feature:* 40 to 60 inches to paralithic bedrock

*Drainage class:* Well drained

## Soil Survey of Franklin County Area, Idaho

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 5.2 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### **Typical profile**

A—0 to 9 inches; gravelly clay loam

Bk1—9 to 22 inches; very gravelly clay loam

Bk2—22 to 48 inches; extremely cobbly loam

Cr—48 to 58 inches; weathered bedrock

### ***Characteristics of the Lonigan Soil***

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Volcanic ash, alluvium, and residuum weathered from tuff

*Slope:* 15 to 50 percent

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Very slightly saline (about 3.0 mmhos/cm)

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 3.1 inches)

### **Interpretive groups**

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

### **Typical profile**

A—0 to 8 inches; gravelly silt loam

Bw—8 to 11 inches; very gravelly silt loam

Bk—11 to 24 inches; very gravelly silt loam

Cr—24 to 34 inches; weathered bedrock

### ***Dissimilar Minor Components***

- Moderately deep soils on convex slopes—10 percent of the map unit
- Soils that have slopes of less than 15 percent or more than 55 percent—5 percent of the map unit
- Badland on shoulders—5 percent of the map unit

### ***Major Uses***

Nonirrigated cropland and rangeland

## **158—Wursten-Dirtyhead complex, 12 to 30 percent slopes**

### ***Map Unit Setting***

*General landscape:* Hills

*Major land resource area (MLRA):* 28A

*Elevation:* 4,600 to 5,000 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 70 to 90 days

### ***Map Unit Composition***

Wursten and similar soils—45 percent

Dirtyhead and similar soils—35 percent

Dissimilar minor components—20 percent

### ***Characteristics of the Wursten Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 9.0

*Available water capacity (entire profile):* High (about 9.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 11-13 Artrt/pssp6 (R028AY024ID)

#### **Typical profile**

A—0 to 5 inches; loam

Bk1—5 to 17 inches; loam

Bk2—17 to 31 inches; loam

Bk3—31 to 60 inches; gravelly loam

### ***Characteristics of the Dirtyhead Soil***

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* East

*Range in aspect:* North to south (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium and residuum

*Slope:* 12 to 30 percent

*Depth to a restrictive feature:* 25 to 40 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 2.8 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Shallow Loamy 8-12 Arno4/pssp6 (R028AY013ID)

**Typical profile**

A—0 to 6 inches; very gravelly loam

Bk—6 to 38 inches; very gravelly sandy loam

Cr—38 to 48 inches; weathered bedrock

***Dissimilar Minor Components***

- Hondoho soils on linear or slightly concave slopes—10 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 30 percent—5 percent of the map unit
- Ricrest soils on linear or slightly convex slopes—5 percent of the map unit

***Major Use***

Rangeland

**159—Xerochrepts-Wormcreek-Xerorthents complex, 20 to 70 percent slopes**

***Map Unit Setting***

*General landscape:* Mountains

*Major land resource area (MLRA):* 13

*Elevation:* 4,800 to 5,900 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 43 to 47 degrees F

*Frost-free period:* 80 to 110 days

***Map Unit Composition***

Xerochrepts and similar soils—30 percent

Wormcreek and similar soils—25 percent

Xerorthents and similar soils—20 percent

Dissimilar minor components—25 percent

***Characteristics of the Xerochrepts***

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

## Soil Survey of Franklin County Area, Idaho

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Mixed colluvium and residuum

*Slope:* 20 to 40 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Sodium adsorption ratio of about 3.0

*Available water capacity (entire profile):* Moderate (about 8.1 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 6e

*Ecological site:* Juniper Breaks 13-16 Juos/pssp6 (R028AY027ID)

### Typical profile

A—0 to 8 inches; silt loam

BA—8 to 14 inches; silt loam

Bw—14 to 26 inches; silt loam

Bk—26 to 60 inches; silt loam

## Characteristics of the Wormcreek Soil

### Setting

*Landform:* Mountain slopes

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Volcanic ash and alluvium, colluvium, and residuum derived from tuff

*Slope:* 20 to 60 percent

*Depth to a restrictive feature:* 40 to 60 inches to paralithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Low (about 5.2 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 7e

*Ecological site:* Ashy Loam 13-16 Artv/pssp6 (R013XY009ID)

### Typical profile

A—0 to 9 inches; gravelly clay loam

Bk1—9 to 22 inches; very gravelly clay loam

Bk2—22 to 48 inches; extremely cobbly loam

Cr—48 to 58 inches; weathered bedrock

### ***Characteristics of the Xerorthents***

#### **Setting**

*Landform:* Mountain slopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* South  
*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 30 to 70 percent  
*Depth to a restrictive feature:* 10 to 60 inches to paralithic bedrock  
*Drainage class:* Somewhat excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 2.0  
*Available water capacity (entire profile):* Very low (about 1.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Juniper Breaks 13-16 Juos/pssp6 (R028AY027ID)

#### **Typical profile**

A—0 to 3 inches; gravelly loam  
C—3 to 11 inches; extremely channery loam  
Cr—11 to 21 inches; weathered bedrock

#### ***Dissimilar Minor Components***

- Soils that have slopes of less than 20 percent or more than 70 percent—7 percent of the map unit
- Lanoak soils on north-facing slopes—5 percent of the map unit
- Copenhagen soils on south-facing slopes—5 percent of the map unit
- Broadhead soils on concave, north-facing slopes—5 percent of the map unit
- Rock outcrop on shoulders—3 percent of the map unit

#### ***Major Use***

Rangeland

### **160—Xerorthents, 30 to 60 percent slopes**

#### ***Map Unit Setting***

*General landscape:* Hills  
*Major land resource area (MLRA):* 13  
*Elevation:* 5,200 to 5,800 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 41 to 47 degrees F  
*Frost-free period:* 80 to 110 days

#### ***Map Unit Composition***

Xerorthents and similar soils—75 percent  
Dissimilar minor components—25 percent



### ***Characteristics of the Xerorthents***

#### **Setting**

*Landform:* Hillslopes  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Representative aspect:* West  
*Range in aspect:* South to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum  
*Slope:* 30 to 60 percent  
*Depth to a restrictive feature:* 10 to 60 inches to paralithic bedrock  
*Drainage class:* Somewhat excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Flooding:* None  
*Ponding:* None  
*Seasonal high water table (minimum depth):* More than 72 inches  
*Salinity (maximum):* Nonsaline (about 1.0 mmho/cm)  
*Sodicity (maximum):* Sodium adsorption ratio of about 2.0  
*Available water capacity (entire profile):* Very low (about 1.1 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7e  
*Ecological site:* Steep Slopes 12-16 Artv/pssp6 (R013XY008ID)

#### **Typical profile**

A—0 to 3 inches; gravelly loam  
C—3 to 11 inches; extremely channery loam  
Cr—11 to 21 inches; weathered bedrock

### ***Dissimilar Minor Components***

- Soils that have slopes of less than 30 percent or more than 60 percent—5 percent of the map unit
- Oxford soils on convex slopes—5 percent of the map unit
- Hondoho soils on toeslopes—5 percent of the map unit
- Brifox soils on convex slopes—5 percent of the map unit
- Broadhead soils on concave, north-facing slopes—3 percent of the map unit
- Huffman soils on concave slopes—2 percent of the map unit

### ***Major Use***

Rangeland

## **161—Yeates Hollow extremely stony loam, 12 to 35 percent slopes**

### ***Map Unit Setting***

*General landscape:* Mountains  
*Major land resource area (MLRA):* 47 and 13  
*Elevation:* 5,200 to 6,200 feet  
*Mean annual precipitation:* 16 to 20 inches  
*Mean annual air temperature:* 40 to 45 degrees F  
*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Yeates Hollow and similar soils—85 percent

Dissimilar minor components—15 percent

### **Characteristics of the Yeates Hollow Soil**

#### **Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* Southwest

*Range in aspect:* Southeast to northwest (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 12 to 35 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

#### **Typical profile**

A—0 to 8 inches; cobbly silt loam

BA—8 to 16 inches; extremely cobbly loam

Bt1—16 to 19 inches; extremely cobbly clay loam

Bt2—19 to 29 inches; very cobbly clay

Bt3—29 to 60 inches; very gravelly clay loam

### **Dissimilar Minor Components**

- Soils that have slopes of less than 12 percent or more than 35 percent—5 percent of the map unit
- Softback soils on concave slopes—5 percent of the map unit
- Manila soils on convex slopes—5 percent of the map unit

### **Major Use**

Rangeland

## **162—Yeates Hollow-Manila-Softback complex, 12 to 40 percent slopes**

### **Map Unit Setting**

*General landscape:* Hills

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,200 to 6,600 feet

*Mean annual precipitation:* 16 to 19 inches

## Soil Survey of Franklin County Area, Idaho

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 60 to 90 days

### **Map Unit Composition**

Yeates Hollow and similar soils—40 percent

Manila and similar soils—25 percent

Softback and similar soils—15 percent

Dissimilar minor components—20 percent

### **Characteristics of the Yeates Hollow Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 12 to 40 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.5 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

#### **Typical profile**

A—0 to 8 inches; cobbly silt loam

BA—8 to 16 inches; extremely cobbly loam

Bt1—16 to 19 inches; extremely cobbly clay loam

Bt2—19 to 29 inches; very cobbly clay

Bt3—29 to 60 inches; very gravelly clay loam

### **Characteristics of the Manila Soil**

#### **Setting**

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed alluvium

*Slope:* 12 to 30 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

## Soil Survey of Franklin County Area, Idaho

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* High (about 10.4 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 4e

*Ecological site:* Loamy 16-22 Artv/pssp6 16-22" (R013XY005ID)

### Typical profile

Ap—0 to 7 inches; silt loam

Bt1—7 to 33 inches; silty clay loam

Bt2—33 to 50 inches; cobbly clay loam

Bk—50 to 60 inches; gravelly loam

### Characteristics of the Softback Soil

### Setting

*Landform:* Hillslopes

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

### Properties and qualities

*Parent material:* Mixed colluvium

*Slope:* 12 to 40 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.6 inches)

### Interpretive groups

*Land capability subclass (nonirrigated):* 6s

*Ecological site:* Mountain Loam 18-22 Acsag2/artv/pssp6 (R047XY009ID)

### Typical profile

Oi—0 to 1 inch; slightly decomposed plant material

A1—1 to 4 inches; gravelly silt loam

A2—4 to 10 inches; gravelly silt loam

A3—10 to 24 inches; very cobbly silt loam

Bt1—24 to 30 inches; very gravelly silt loam

Bt2—30 to 39 inches; extremely gravelly clay loam

Bt3—39 to 63 inches; extremely gravelly silty clay loam

### Dissimilar Minor Components

- Vitale soils on convex slopes—5 percent of the map unit
- Lanoak soils in draws—5 percent of the map unit
- Hades soils on concave slopes—5 percent of the map unit
- Soils that have slopes of less than 12 percent or more than 40 percent—3 percent of the map unit
- Soils that are near seeps and are poorly drained—2 percent of the map unit

**Major Uses**

Rangeland and building site development

**163—Yeates Hollow-Vitale complex, 25 to 50 percent slopes**

**Map Unit Setting**

*General landscape:* Mountains (fig. 15)

*Major land resource area (MLRA):* 13 and 47

*Elevation:* 5,400 to 6,400 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 90 days

**Map Unit Composition**

Yeates Hollow and similar soils—45 percent

Vitale and similar soils—35 percent

Dissimilar minor components—20 percent

**Characteristics of the Yeates Hollow Soil**

**Setting**

*Landform:* Mountain slopes

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

**Properties and qualities**

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 25 to 50 percent

*Restrictive feature:* None within a depth of 60 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Moderate (about 6.5 inches)

**Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Stony Loam 16-22 Artv/pssp6 (R013XY019ID)

**Typical profile**

A—0 to 8 inches; cobbly silt loam

BA—8 to 16 inches; extremely cobbly loam

Bt1—16 to 19 inches; extremely cobbly clay loam

Bt2—19 to 29 inches; very cobbly clay

Bt3—29 to 60 inches; very gravelly clay loam

**Characteristics of the Vitale Soil**

**Setting**

*Landform:* Mountain slopes





Figure 15.—An area of Yeates Hollow-Vitale complex, 25 to 50 percent slopes. Vitale extremely stony loam is in the foreground and background. Yeates Hollow cobbly silt loam is in the saddle in the middle of photo.

*Geomorphic position (two-dimensional):* Summits and backslopes

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Representative aspect:* South

*Range in aspect:* East to west (clockwise)

#### **Properties and qualities**

*Parent material:* Mixed colluvium and residuum

*Slope:* 25 to 50 percent

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Flooding:* None

*Ponding:* None

*Seasonal high water table (minimum depth):* More than 72 inches

*Salinity (maximum):* Nonsaline

*Sodicity (maximum):* Nonsodic

*Available water capacity (entire profile):* Very low (about 1.8 inches)

#### **Interpretive groups**

*Land capability subclass (nonirrigated):* 7s

*Ecological site:* Gravelly Loam 16-22 Artv/pssp6 (R013XY007ID)

#### **Typical profile**

A1—0 to 1 inch; extremely stony loam

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A2—1 to 15 inches; very cobbly loam

Bt—15 to 26 inches; extremely cobbly clay loam

R—26 to 36 inches; unweathered bedrock

### ***Dissimilar Minor Components***

- Rock outcrop—5 percent of the map unit
- Manila soils on concave slopes—5 percent of the map unit
- Lanoak soils on north-facing slopes that support maple trees—5 percent of the map unit
- Dranburn soils on north-facing slopes that support maple trees—5 percent of the map unit

### ***Major Use***

Rangeland

## **164—Water**

This map unit consists of areas that are covered by water most of the year.





# Use and Management of the Soils

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This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as rangeland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and for agricultural waste management. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, reclamation material, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

## Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

## Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the potential of the soils for the use. Terms for limitation classes are *not limited*, *somewhat limited*, and *very limited*. Terms indicating potential are *good*, *fair*, and *poor*.

## Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate

gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

## Crops and Pasture

Shawn McVey, soil scientist, and David Curtis, district conservationist, helped prepare this section.

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

The survey area has about 175,000 acres of cropland, hayland, or pasture. Of this acreage, approximately 75,000 acres is nonirrigated cropland, 70,000 acres is irrigated cropland, and 30,000 acres is hayland or pasture. The climate in the area and the slope of the cultivated soils dictate what varieties of crops can be grown. The soils are generally grouped into five major slope categories—0 to 2 percent, 2 to 4 percent, 4 to 12 percent, 12 to 20 percent, and more than 20 percent.

The irrigated soils occur almost exclusively in areas where slopes are 0 to 12 percent. The major crops grown in the irrigated areas are alfalfa, barley, and wheat. The large dairy industry in the survey area strongly influences the extent of alfalfa and barley production. The cropping sequence on irrigated farms is generally 2 or 3 years of small grains and 5 to 7 years of alfalfa. Shortages of precipitation occur in 5 out of 10 years. Because of the storage capacity of area reservoirs, shortages of irrigation water occur in 3 out of 10 years. Applications of irrigation water should be adjusted to the available water capacity, water intake rate, and depth of the soil and the needs of the crop. Yields for irrigated small grains of 85 bushels per acre are common.

In irrigated areas proper management includes not only conservation cropping sequences and crop residue management but also irrigation water management and nutrient and pesticide management. These practices help to ensure that sediment and the associated nutrients and pesticides are not creating undesirable offsite effects.

A small acreage of irrigated soils is used for silage corn or green beans. There is a potential market for fresh vegetables and truck crops because of the proximity of the survey area to other communities. Fruits and vegetables are grown on a limited acreage in the area. They include apples, cabbage, carrots, cucumbers, grapes, red and russet potatoes, and sweet corn.

Approximately 9,000 acres of hayland or pasture is subirrigated. Most of this acreage is in riparian areas along the Bear and Cub Rivers and in the Oxford Slough area. Because of seasonal high water tables and the hazard of flooding, these areas are not used for annual crops, such as small grains. They are commonly used for livestock wintering and wild hay production. The management of these areas should include irrigation water management as well as nutrient and pesticide management. In the areas used for livestock grazing, appropriate watering facilities and fencing are needed to minimize the impacts of livestock on the associated riparian zones. Typical soils in these areas are those of the Bear Lake, Delish, and Downata series.

Nonirrigated crops are grown on all of the slope groups. They include wheat, barley and alfalfa, and some safflower and canola. Typical nonirrigated cropping

sequences include wheat-fallow and wheat-barley-fallow. Annual cropping is becoming increasingly popular, especially in the areas of higher precipitation. Under good management, annual yields of nonirrigated cereal grain average 35 bushels per acre. Loss of surface soil to sheet and rill erosion is a serious problem on nonirrigated cropland. Productivity is reduced as the surface soil is lost and part of the less productive subsoil becomes incorporated into the plow layer. Erosion caused by concentrated flow creates deep gullies on moderate to steep slopes and is a considerable hazard affecting the operation of farm machinery. The most serious erosion occurs in early spring, when the snow accumulated in winter rapidly melts and the meltwater runs off the surface, causing catastrophic erosion rates that can approach 35 tons of sediment per acre. Soil that is eroded from cropland and transported to streams reduces the quality of water for municipal and recreation uses and for fish and wildlife and reduces the storage capacity of irrigation reservoirs.

Erosion-control measures on all of the slope groups should include a conservation cropping sequence that maintains a sufficient cover of plants or crop residue to adequately protect the surface and reduce erosion losses to levels that do not reduce the productive capability of the soils. Including grasses and legumes in the crop rotation help to control erosion and maintain soil fertility and tilth. Soils with good tilth generally have granular structure, are porous, and have a high rate of water infiltration. Minimum tillage and no-till practices minimize soil compaction and help to maintain soil tilth.

Maintaining a cover of crop residue on the surface at planting time, especially on Wheelon, Collinston, and similar soils, increases the rate of water infiltration, helps to dissipate the energy of high-intensity rainstorms, and reduces the runoff rate and the hazard of erosion.

Terraces and diversions reduce the length of slopes and thus help to prevent excessive runoff and erosion. They are most practical on very deep, well drained soils that have long, uniform slopes of as much as 14 percent. Where concentrated flows have created gullies, water- and sediment-control structures or grassed waterways can help to prevent further gullying, ensuring that more valuable cropland is not lost. Ant Flat, Banida, Collinston, Lanoak, Oxford, and Wheelon soils are suitable for terraces and diversions. Other suitable erosion-control practices include, contour farming, cross-slope farming, and stripcropping. Information about the design of erosion-control measures is available in local offices of the Natural Resources Conservation Service.

The Bear River Range to the east of the survey area traps and collects nearly half of the annual precipitation in the form of snow. The subsequent snowmelt then becomes the source of most of the available irrigation water. Surface irrigation methods are used on about 15 percent of the irrigated acreage, and sprinkler irrigation is used on 85 percent. The water resources in the survey area have been widely developed in the past. Franklin County has more than a dozen reservoirs, including Foster, Glendale, and Twin Lakes.

The Mink Creek drainage, on the eastern side of the county, is of special significance because it has a large number of dairies in a confined watershed area. Because of steep slopes and limited areas of cropland, waste disposal can create a potential water-quality problem.

Most of the soils used as cropland in the survey area have a surface layer of silt loam, silty clay loam, or loam. This layer is moderately low in content of organic matter, unlike the surface layer in Bear Lake, Downata, and other wetland soils. Regular additions of crop residue and manure can help to maintain or increase the content of organic matter, improve soil structure and fertility, and increase the available water capacity and the rate of water infiltration.

Grain, hay and pasture crops respond well to applications of fertilizer. Barley, wheat, and pasture grasses respond well to applications of nitrogen, phosphorus,

and sulfur. Legumes respond well to applications of phosphorus and sulfur. More fertilizer should be applied on irrigated soils than on nonirrigated soils.

On all soils, the addition of fertilizer should be based on the results of soil tests, the needs of the crop, and the expected level of yields. A good fertilization program is essential for high crop production.

In areas used for pasture, proper grazing is essential for the production of high-quality forage, stand survival, and erosion control. It helps plants to maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation also are important management practices.

## **Yields per Acre**

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 5. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Pasture yield estimates commonly are indicated in animal unit months (AUMs). An animal unit month is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 30 days. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about forage yields.

Crops other than those shown in table 5 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

## **Land Capability Classification**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used

in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961). Only class and subclass are used in this survey.

*Capability classes*, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

*Capability subclasses* are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2*e*. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

The capability classification of map units in this survey area is given in the section "Detailed Soil Map Units" and in table 5.

## Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food,

## Soil Survey of Franklin County Area, Idaho

feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

The map units in the survey area that are considered prime farmland are listed in this section. Only the soils considered prime farmland are listed. Urban land or built-up areas of the soils listed are not considered prime farmland. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

The map units that meet the requirements for prime farmland are:

- 2 Ant Flat silty clay loam, 0 to 2 percent slopes
- 3 Ant Flat silty clay loam, 2 to 4 percent slopes
- 7 Arbone loam, 0 to 4 percent slopes
- 10 Battle Creek silty clay loam, 0 to 2 percent slopes
- 11 Battle Creek silty clay loam, 2 to 4 percent slopes
- 50 Holmes gravelly silt loam, 0 to 2 percent slopes
- 51 Hondee gravelly loam, 1 to 4 percent slopes
- 57 Huffman silt loam, 0 to 4 percent slopes
- 66 Kearns silt loam, 0 to 2 percent slopes
- 68 Kidman fine sandy loam, 0 to 2 percent slopes
- 69 Kidman fine sandy loam, 2 to 4 percent slopes
- 71 Kidman fine sandy loam, wet, 0 to 2 percent slopes
- 72 Kidman-Sterling complex, 0 to 2 percent slopes (where irrigated)
- 73 Lando silt loam, 0 to 4 percent slopes
- 74 Lanoak silt loam, 0 to 4 percent slopes
- 80 Layton loamy fine sand, 0 to 2 percent slopes (where irrigated)
- 81 Layton sandy loam, 0 to 2 percent slopes
- 87 Manila silt loam, 0 to 4 percent slopes
- 95 Maplecreek fine sandy loam, 0 to 2 percent slopes
- 97 Merkley-Lago-Bear Lake complex, 0 to 2 percent slopes (where protected from flooding or not frequently flooded during the growing season)
- 109 Parleys silt loam, 0 to 4 percent slopes
- 110 Parleys silt loam, 4 to 8 percent slopes
- 111 Parleys silt loam, wet, 0 to 2 percent slopes
- 116 Pollynot silt loam, 0 to 2 percent slopes
- 117 Pollynot silt loam, 2 to 4 percent slopes



- 123 Preston fine sand, 0 to 2 percent slopes (where irrigated)
- 124 Preston fine sand, 2 to 6 percent slopes (where irrigated)
- 133 Sterling gravelly loam, 0 to 4 percent slopes
- 137 Sterling-Parleys complex, 0 to 6 percent slopes
- 146 Welby silt loam, 0 to 2 percent slopes
- 147 Welby silt loam, 2 to 4 percent slopes
- 148 Welby silt loam, wet, 0 to 2 percent slopes
- 154 Winwell silty clay loam, 0 to 2 percent slopes

## Rangeland

Scott Engle, district conservationist, helped prepare this section.

Rangeland makes up about 105,500 acres, or nearly 35 percent of the land, in the survey area. Approximately 15 percent of the rangeland is administered by the Bureau of Land Management, 15 percent is administered by the State, and 70 percent is privately owned. A National Forest, which is not included in the survey area, makes up 20 percent of the acreage in Franklin County and includes large areas of rangeland.

The most important livestock industry in Franklin County is dairying. Most dairies are confinement operations with no livestock on pasture or only dry stock and young stock on pasture.

The most common livestock operation on the rangeland is the raising of beef cattle. Cow-calf operations are the most numerous. Many cow-calf operators use the National Forest ranges for summer pasture. Private range is used for spring-fall pasture or spring-summer-fall pasture.

A few range sheep operations use private or State-owned ranges for spring-fall pasture or National Forest ranges for summer pasture. Farm sheep flocks use irrigated, subirrigated, or dryland pastures for summer feed.

Most of the grazing occurs on native range. The range is used primarily for grazing by domestic livestock; however, it also is used as wildlife habitat, for recreation, and for watershed, and it has esthetic value.

## Range Condition

Range condition is based on a comparison of the present plant community with the potential natural plant community on a particular range site. The more closely the existing community resembles the natural community, the better the range condition.

Abnormal disturbances that change the natural plant community include repeated overuse by livestock, excessive burning, erosion, and plowing. Grazing animals select the most palatable plants. These plants will eventually die if they are continually grazed. A very severe disturbance can completely destroy the natural community. Under these conditions, the less desirable plants, such as annuals and weedlike plants, can invade. If the plant community has not deteriorated significantly, it eventually can return to dominantly natural plants if proper grazing management is applied.

Four range condition classes show the degree of deterioration of the natural plant community. An area of rangeland is in *excellent condition* if more than 75 percent of the present plant community is the same as the natural plant community. It is in *good condition* if the natural plants make up 51 to 75 percent of the present plant community, in *fair condition* if those plants make up 26 to 50 percent, and in *poor condition* if they make up 25 percent or less.

Knowledge of the rangeland ecological site and condition is necessary as a basis for planning and applying the management needed to maintain or improve the desired plant community for selected uses. Such information is needed to determine

management objectives, proper grazing systems and stocking rates, suitable wildlife management practices, the potential for recreational uses, and the condition of watersheds.

In areas that have similar climate and topography, differences in the kind and amount of rangeland or forest understory vegetation are closely related to the kind of soil. Effective management is based on the relationship between the soils and vegetation and water.

Table 6 shows, for each soil that supports vegetation suitable for grazing, the ecological site; the total annual production of vegetation in favorable, normal, and unfavorable years; the characteristic vegetation; and the average percentage of each species. An explanation of the column headings in table 6 follows.

An *ecological site* is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The hydrology of the site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.

*Total dry-weight production* is the amount of vegetation that can be expected to grow annually in a well managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, normal, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

*Characteristic vegetation*—the grasses, forbs, and shrubs that make up most of the potential natural plant community on each soil—is listed by common name. Under *rangeland composition*, the expected percentage of the total annual production is given for each species making up the characteristic vegetation. The amount that can be used as forage depends on the kinds of grazing animals and on the grazing season.

## Rangeland Management

Rangeland management requires knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the present range condition.

The objective in rangeland management is to control grazing so that the plants growing on a site are about the same in kind and amount as the potential natural plant community for that site. Such management generally results in the optimum production of vegetation, reduction of the extent of the less desirable species, conservation of water, and control of erosion. Sometimes, however, a range condition somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

## Soil Survey of Franklin County Area, Idaho

Grazing management is the most important part of any rangeland management program. Proper grazing use, timely deferment of grazing, and planned rotation grazing systems are key practices. The experience of ranchers and research have shown that if no more than one-half of the current year's growth is grazed, a plant community in good or excellent condition can be maintained and one in fair condition can be improved. The remaining one-half enables plants to make and store food for regrowth and root development. As a result, the desirable plants remain healthy and are not replaced by less desirable grasses and weeds. Also, the plant cover protects the soil from water erosion and soil blowing, improves tilth, increases the rate of water infiltration, and helps to control runoff.

Certain practices commonly are needed to obtain a uniform distribution of grazing. These include developing livestock watering facilities, fencing, properly locating salt and mineral supplements, constructing livestock trails in steeply sloping areas, and riding or herding.

Various kinds of grazing systems can be used in range management. No single grazing system is best under all conditions. The grazing system should increase the quantity and improve the quality of the range vegetation, should meet the needs of the individual operator, and should be designed according to the topography, the type of grazing animals, and the resource management objectives.

Special improvement practices are needed in areas where management practices do not achieve the desired results or where recovery is too slow under forage management alone. These include range seeding, brush management, water spreading, prescribed burning, and mechanical treatment.

Some soils are suited to mechanical treatment for range improvement. On other soils, however, only proper grazing management can improve the range. Many soils in capability classes 1 through 4 are suited to such practices as seeding, mechanical brush and weed control, and water spreading. Those in capability classes 7 and 8, however, are not suitable for these practices. Many soils in capability classes 1 through 4 are suited to tillage for seedbed preparation before native or introduced forage species are seeded. Soils in capability class 6 may be suited to limited surface disturbance, such as scarification, for the purpose of seeding and as a means of increasing the rate of water infiltration for seed germination.

Where feasible, mechanical renovation practices, such as shallow chiseling, can help to speed recovery of the desired plants. These practices open up the surface and thus allow the absorption of more moisture and production of the more desirable plants. Mechanical renovation, brush management, and timely deferment of grazing allow recovery of the desired plants.

Seeding may be needed in areas where the less desirable plants are dominant. A clean, firm seedbed should be prepared, suitable species should be selected for seeding, and rest periods should be long enough to allow the new plants to become established.

Special improvement practices can be effective only if the management system helps to keep the desirable plants healthy.

Franklin County has a range problem that is uncommon in most of Idaho. Bigtooth maple increases in density on the sites where it occurs and then invades adjacent ecological sites. It forms dense thickets that intercept most of the light and water and thus hamper the growth of other vegetation. The invasion of bigtooth maple has virtually eliminated forage production in some areas and threatens many other areas.

There are several theories on the cause of maple invasion. These include overgrazing, lack of fire, and livestock damage to the roots, which causes sprouting. Northern Utah ranges also have the problem of maple invasion. The range of bigtooth maple extends slightly north and west of Franklin County. In Idaho, this invasion appears to be most common Franklin County.

## Forest Land Management and Productivity

This survey area has about 3,500 acres of forest land. This acreage is only about 1 percent of the total acreage in the survey area. Three forested soils were identified and mapped during the survey process. These are the Northwater, Pavohroo, and Sedgway soils.

The forested soils are on mountain foothills. They are transitional between the lower rangeland and brush fields on the drier landscapes and the more traditional forests at the wetter and higher elevations in the survey area. The areas of extensive forest land in the county are within the jurisdiction of the U.S. Forest Service and are not included in this survey area.

The forests in this survey area begin on favorable soils and aspects near elevations of 5,800 feet. They extend to the elevations of 8,000 feet, where they border lands in the adjacent National Forests. Douglas-fir is the most common commercial timber species throughout the entire range of forested soils within the survey area. A very limited acreage of forested soils in the area supports subalpine fir and lodgepole pine.

The forested soils are generally classified in the Douglas-fir/ninebark or Douglas-fir/mountain maple habitat type. The U.S. Forest Service publication "Forest Habitat Types of Eastern Idaho-Western Wyoming" (Steele, 1983) provides additional information about the ecology, silviculture, and management of the forest resources in the survey area.

The forests in the survey area, especially those at the lower elevations, are characterized by sparse stand densities, low basal areas, and low or moderate potential production levels. The site index productivity values of the forested soils range from 48 to 53 (Brickell, 1968), according to data shown for the defined forest habitat types of these soils (Steele, 1983, p. 117). Yield estimations were not made because of the scarcity of sample data for the forested soils in the survey area.

Natural regeneration can occur in small openings on these soils. Brush competition is often severe, however, and can limit seedling establishment and survivability, as well as the total wood production of the stand. The dominant brush species include aspen, mountain maple, ninebark, common snowberry, and mountain sweet-root. These soils can revert to perpetual serial brush stands if the overstory of mature Douglas-fir is removed and if natural regeneration and establishment of Douglas-fir seedlings are retarded by the resulting increased brush competition. In these cases, forests stands can be reestablished only through hand planting along with adequate site preparation.

The steeper slopes limit the type and use of timber-harvesting equipment. The soils on these slopes are valuable for wildlife resources, for watershed protection, and for esthetic enjoyment and recreation. Some forest stands can provide firewood.

## Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, yards, fruit trees, gardens, and cropland from wind and snow; help to keep snow on fields; and provide food and cover for wildlife. Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Table 7 shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in table 7 are based on

measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from the local office of the Natural Resources Conservation Service or of the Cooperative Extension Service or from a commercial nursery.

## Recreation

The soils of the survey area are rated in tables 8 and 9 according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in tables 8 and 9 can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

*Camp areas* require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

*Picnic areas* are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that



affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

*Playgrounds* require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

*Paths and trails* for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

*Off-road motorcycle trails* require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

*Golf fairways* are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

## Wildlife Habitat

Prepared by Ronald Gill, biologist, Natural Resources Conservation Service.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments and other practices. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. If the soils have potential for habitat development, wildlife habitat can be created or improved by planting appropriate vegetation, properly managing the existing plant cover, and fostering the natural establishment of desirable plants.

The wildlife resources in this survey area are largely determined by the suitability of the habitat, which includes the supply of food, the amount of cover, and the amount of available water. Habitats differ in their capacity to provide these essential ingredients. Some deficiencies in habitat result from the characteristics of the soils, while others are the result of poor management. Good management practices are

needed to improve the habitat for wildlife. They should be integrated with other uses of the soils.

The following paragraphs relate the general soil map units in the survey area to the expected occurrences of certain wildlife species. Wildlife in an area is typically related to the current vegetation. The vegetation is closely related to the soil and the capability of the soil to produce herbaceous and woody vegetation.

The survey area supports a variety of game and nongame fish and wildlife species. Mammals, birds, amphibians, reptiles, and fish all use the area for certain life requisites. Migratory wildlife species, mainly avian species, seasonally visit the survey area.

The wide array of wildlife species in the survey area is possible because of a wide variety of habitats. Mountains, hills, flood plains, and water bodies and their associated topography, soils, precipitation, and land uses, provide a diverse habitat in the area.

Several habitat types are common across many of the general soil map units in the survey area. With only a few exceptions, these different units host many of the same wildlife species.

Habitats at the higher elevations have juniper, sagebrush, quaking aspen, and smaller amounts of pine, spruce, and fir. Shrubby vegetation includes serviceberry, snowberry, sagebrush, mountain mahogany, and antelope bitterbrush in these mountainous areas.

Intermediate elevations support sagebrush, antelope bitterbrush, rabbitbrush, and wheatgrasses. Springs and wet meadows are in scattered areas. The flood plain along the Bear River provides the largest wet meadows. Riparian zones occur as linear ribbons, frequently extending through two or more general soil map units. The vegetation associated with these areas includes willow, cottonwood, dogwood, alder, sedges, rushes, and water-loving grasses.

## **Ungulates**

The ungulates in the survey area include mule deer, elk, and moose. Mule deer occur throughout the area. Their range extends from the foothills and mountainous areas in the summer to the lower foothills and bottom lands in the winter. Mule deer populations are dependent on available winter and summer habitat. Quaking aspen is a major component of the mule deer habitat in the survey area. Mountain brush communities made up of juniper, sagebrush, antelope bitterbrush, rabbitbrush, snowberry, and quaking aspen are common in areas of summer habitat for mule deer. Summer range for mule deer is typically associated with general soil map units 3, 6, 7, 8, 9, 10, and 11.

Winter range is a critical component of mule deer habitat in the area. Juniper, mountain maple, mountain mahogany, and quaking aspen are common cover types in areas of winter range. Grasses, maple, quaking aspen, and antelope bitterbrush provide important winter forage. Depredation and mortalities are common during severe winters. Winter range is typically on south-facing slopes at the lower elevations in general soil map units 3, 6, 8, and 9.

The elk population in the survey area is estimated to be 200 to 300. It is increasing. It is highest in the north-central part and the southeast corner of the survey area. These areas correlate with general soil map units 6, 8, and 9. They are characterized by rolling hills and mountains that typically support juniper, mountain mahogany, quaking aspen, sagebrush, rabbitbrush, and bluebunch wheatgrass. Limited available winter cover may restrict the elk population.

Moose are in the northern parts of the survey area. They are associated with Cottonwood, Williams, Mink, and Strawberry Creeks and may occur in areas along



several other creeks. They prefer shrubby mixed coniferous and deciduous forests, especially those near water bodies. They are common in areas of general soil map units 6, 8, 9, and 11 in the immediate vicinity of lakes and riparian areas, where food, such as willows and submerged vegetation, is available. The survey area has an estimated 30 to 40 moose.

## **Avians**

Common upland game birds in the survey area include pheasant, gray partridge, mourning dove, sage grouse, sharp-tailed grouse, blue grouse, and ruffed grouse. Wild turkeys were introduced in the Riverdale area during the winter of 1963 and during several periods since then in an attempt to build their numbers.

The birds associated with agricultural areas are pheasant and gray partridge and, to a lesser extent, sharp-tailed grouse. Pheasant and gray partridge are associated with areas of general soil map units 1, 2, 3, 4, 5, 6, and 7. These areas are typically farmed and provide limited habitat for these species. Winter habitat is associated with woody vegetation in the same general map units and also in riparian areas of general soil map units 2 and 3. Pheasant and partridge populations are dependent on undisturbed nesting and enough woody vegetation for the birds to survive harsh winters.

Sharp-tailed grouse occur in the north-central part of the survey area, in areas of general soil map units 6, 8, 9, and 11. They use grasslands mixed with brushy cover (sagebrush, antelope bitterbrush, and serviceberry) during the summer months. In areas of cropland, they feed on seeds and cultivated grains in late summer and in fall. Brush species provide food in late fall and in winter and are an extremely important component of the habitat for sharp-tail grouse during severe winters.

Sage grouse densities are highest in the north-central and western parts of the survey area. Areas of general soil map units 6, 7, 8, 9, and 11 provide limited seasonal habitat for the sage grouse. These areas are typically characterized by a vegetative community dominated by sagebrush, grasses, and forbs. The sage grouse migrate from summer to winter ranges, both of which are dominated by sagebrush. Forbs are important for brood rearing. Because of its reliance on sagebrush-grass dominated communities, this species is extremely vulnerable to land use management practices that disrupt these communities.

Ruffed grouse and blue grouse inhabit the forested areas in the mountains. These species occur in areas of general soil map units 8, 9, 10, and 11. The southeastern part of the survey area has the highest concentrations of ruffed grouse, in areas along Sugar and Maple Creeks. Ruffed grouse are typically associated with riparian areas dominated by stands of quaking aspen. Blue grouse are typically associated with fir and pine stands at the higher elevations.

Waterfowl are concentrated along streams, rivers, and reservoirs. The waterfowl species in the survey area include Canada geese, mallard, gadwall, teal, redhead, and merganser. Other waterfowl species may be evident during migration periods. The main concentrations of waterfowl occur in areas of general soil map units 2, 3, and 4. General soil map unit 3 provides the most available habitat. The many reservoirs provide limited habitat. Poor nesting and brood-rearing cover limit the waterfowl population in the survey area.

Sandhill cranes, white-faced ibis, blue herons, long-billed curlew, egrets, pelicans, and cormorants are typically associated with the reservoirs and river systems throughout the survey area.

Raptors occur throughout the survey area and inhabit all of the general soil map units. Golden eagles, bald eagles, red-tailed hawks, northern harrier, kestrel, Coopers hawks, sharp-shinned hawks, and goshawks have been known to use the survey area.

The survey area has many species of nongame birds, including kingfishers, woodpeckers, larks, swallows, magpies, crows, chickadees, wrens, thrashers, thrushes, flycatchers, starlings, vireos, warblers, finches, blackbirds, tanagers, and sparrows. The riparian areas have the greatest concentrations of these species. Poor management of these areas may restrict the diversity of vegetative communities and thus limit the population of these birds.

## **Amphibians and Reptiles**

Amphibians include salamanders, frogs, and toads. They require water or a damp substrate to complete their life cycle. In contrast, reptiles are adapted to a completely terrestrial life cycle.

The soils associated with water features, wetlands, or wet meadows provide habitat for amphibians. Hydric soils that are ponded are most likely to provide habitat for amphibians. Downata, Bear Lake, and Chesbrook soils and small areas of wet soils that occur as minor components in several map units in the survey area support amphibians.

The only salamander in the area is the tiger salamander. The tiger salamanders collected in the area are olive gray with a few scattered black spots. Seldom seen in the daytime, they are most likely encountered at night or during rainy periods of the day. The salamanders inhabit ponds, including those formed by irrigation runoff. They are often sold as fish bait, and the chance for accidental or deliberate introduction of the species is high.

The most common frog in the survey area is the leopard frog, which occurs in a variety of moist habitats, including areas influenced by irrigation. The frogs hibernate in ponds or other aquatic areas, becoming active when the water temperature reaches 10 degrees C. The striped chorus frog lives in damp grassy areas and is common in irrigated lawns. It breeds in areas of temporary or permanent water in ditches, ponds, and the shallow backwaters of lakes and streams. The survey area has few other frogs or toads. The western toad and Woodhouse's toad may occur in the area.

Reptiles in the survey area include lizards and snakes. The area has no turtles. An occasional turtle may be discovered, but it is likely to be a former pet that has been released.

The survey area has several species of lizards. The most common one is the sagebrush lizard. This species lives on the ground and is noted for its fast retreat.

The best known reptile, and the only species of rattlesnake in the survey area, is the western rattlesnake. In this survey area, the recognized subspecies is the Great Basin rattlesnake. The rattlesnakes in the area occupy a wider range of habitat and elevations than any other reptile. In the fall, they den in unshaded, rocky areas on south-facing slopes. The Great Basin rattlesnake can hibernate for 210 days.

Gopher snakes also occur in the survey area. They are common in most habitats. They avoid only dense forests and high mountains. They are abundant in dry areas adjacent to farms. Other snakes in the survey area include racer, ringnecked snake, western terrestrial garter snake, and common garter snake.

## **Furbearers**

Furbearers, such as otter, beaver, mink, raccoon, skunk, bobcat, mountain lion, coyote, weasel, badger, and muskrat, are associated with most of the general soil map units in the survey area. The highest concentrations are typically in riparian areas adjacent to rivers, creeks, and reservoirs.

## Fisheries

The fisheries in the survey area are associated with the creeks, the reservoirs, and the Bear River. Oneida Narrows Reservoir, on the mainstem of the Bear River, is operated for power production. The other reservoirs, located on creeks and canals, were built primarily for storage of irrigation water. The most popular fishing reservoirs in the area are Twin Lakes, Glendale, Condie, Foster, Johnson, Lamont, and Oneida Narrows. Stream fishing occurs in the part of the Bear River below the Oneida Dam and on tributaries, such as Mink Creek.

The survey area has a wide range of game fish. Walleye and yellow perch are the game fish in the Oneida Narrows Reservoir. All other reservoirs have annually stocked rainbow trout. The population of walleyes and rainbow trout is maintained by annual stocking. Most of the irrigation reservoirs have largemouth bass, bluegill, and yellow perch. The game fish in the streams include rainbow, brown brook, cutthroat trout, and mountain whitefish. Cutthroat trout and mountain whitefish are native. All other game fish are introduced.

The Oneida Narrows Reservoir has several nongame species, including carp and suckers. The only irrigation storage reservoir with a significant population of nongame fish is Twin Lakes, which has an abundant carp population.

The fisheries throughout the survey area are limited by land and water management. Reservoir fishing is excellent, especially in years when the amount of precipitation is adequate to ensure sufficient pool depth and dissolved oxygen through the winter and cool temperatures in summer. Stream fisheries are severely limited by land and water management. Damage to habitat, dewatering of spawning streams, migration barriers, and losses of juveniles into diversion ditches have resulted in major declines in the population of native species.

## Threatened and Endangered Species

The peregrine falcon is the only endangered species in this survey area. Peregrine falcons once nested on cliffs near Oxford. They have been observed in the survey area, but there have been no recent observations.

## Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, agricultural waste management, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

*Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.*

*The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.*

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, and industrial uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, roadfill, reclamation material, and topsoil; plan structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

## Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 10 and 11 show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

*Dwellings* are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that

affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

*Small commercial buildings* are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

*Local roads and streets* have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

*Shallow excavations* are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

*Lawns and landscaping* require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

## **Sanitary Facilities**

Tables 12 and 13 show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which



the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

*Septic tank absorption fields* are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

*Sewage lagoons* are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

*A trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation,

trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

*Daily cover for landfill* is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.



## Agricultural Waste Management

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

Tables 14, 15, and 16 show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of these tables, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

The ratings in the tables are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

*Application of manure and food-processing waste* not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

*Application of sewage sludge* not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

*Disposal of wastewater by irrigation* not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

*Overland flow of wastewater* is a process in which wastewater is applied to the upper reaches of sloped land and allowed to flow across vegetated surfaces, sometimes called terraces, to runoff-collection ditches. The length of the run generally is 150 to 300 feet. The application rate ranges from 2.5 to 16.0 inches per week. It commonly exceeds the rate needed for irrigation of cropland. The wastewater leaves solids and nutrients on the vegetated surfaces as it flows

downslope in a thin film. Most of the water reaches the collection ditch, some is lost through evapotranspiration, and a small amount may percolate to the ground water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, and the design and construction of the system. Reaction and the cation-exchange capacity affect absorption. Reaction, salinity, and the sodium adsorption ratio affect plant growth and microbial activity. Slope, permeability, depth to a water table, ponding, flooding, depth to bedrock or a cemented pan, stones, and cobbles affect design and construction. Permanently frozen soils are unsuitable for waste treatment.

*Rapid infiltration of wastewater* is a process in which wastewater applied in a level basin at a rate of 4 to 120 inches per week percolates through the soil. The wastewater may eventually reach the ground water. The application rate commonly exceeds the rate needed for irrigation of cropland. Vegetation is not a necessary part of the treatment; hence, the basins may or may not be vegetated. The thickness of the soil material needed for proper treatment of the wastewater is more than 72 inches. As a result, geologic and hydrologic investigation is needed to ensure proper design and performance and to determine the risk of ground-water pollution.

The ratings in the table are based on the soil properties that affect the risk of pollution and the design, construction, and performance of the system. Depth to a water table, ponding, flooding, and depth to bedrock or a cemented pan affect the risk of pollution and the design and construction of the system. Slope, stones, and cobbles also affect design and construction. Permeability and reaction affect performance. Permanently frozen soils are unsuitable for waste treatment.

*Slow rate treatment of wastewater* is a process in which wastewater is applied to land at a rate normally between 0.5 inch and 4.0 inches per week. The application rate commonly exceeds the rate needed for irrigation of cropland. The applied wastewater is treated as it moves through the soil. Much of the treated water may percolate to the ground water, and some enters the atmosphere through evapotranspiration. The applied water generally is not allowed to run off the surface. Waterlogging is prevented either through control of the application rate or through the use of tile drains, or both.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, and the application of waste. The properties that affect absorption include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, depth to bedrock or a cemented pan, reaction, the cation-exchange capacity, and slope. Reaction, the sodium adsorption ratio, salinity, and bulk density affect plant growth and microbial activity. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood of wind erosion or water erosion. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

## Construction Materials

Tables 17 and 18 give information about the soils as potential sources of gravel, sand, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

*Sand and gravel* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 17, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material,

and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good*, *fair*, or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is an unlikely source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

The soils are rated *good*, *fair*, or *poor* as potential sources of topsoil, reclamation material, and roadfill. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil, reclamation material, or roadfill. The lower the number, the greater the limitation.

*Topsoil* is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

*Reclamation material* is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

*Roadfill* is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

## Water Management

Table 19 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

*Pond reservoir areas* hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

*Embankments, dikes, and levees* are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

*Aquifer-fed excavated ponds* are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.





# Soil Properties

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Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

## Engineering Index Properties

Table 20 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.



If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

*Liquid limit and plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

## Physical Properties

Table 21 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Clay* as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In table 21, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

*Moist bulk density* is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at  $1/3$ - or  $1/10$ -bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

*Permeability (Ksat)* refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (Ksat). The estimates in the table indicate the rate of water movement, in inches per

hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

*Available water capacity* refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

*Linear extensibility* refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at  $\frac{1}{3}$ - or  $\frac{1}{10}$ -bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

*Organic matter* is the plant and animal residue in the soil at various stages of decomposition. In table 21, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

*Erosion factors* are shown in table 21 as the K factor ( $K_w$  and  $K_f$ ) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of several factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

*Erosion factor  $K_w$*  indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

*Erosion factor  $K_f$*  indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

*Erosion factor T* is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

*Wind erodibility groups* are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook" (USDA, NRCS).

*Wind erodibility index* is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter,

and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

## Chemical Properties

Table 22 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Cation-exchange capacity* is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

*Effective cation-exchange capacity* refers to the sum of extractable bases plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

*Soil reaction* is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

*Calcium carbonate* equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

*Gypsum* is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

*Salinity* is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

*Sodium adsorption ratio* (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

## Water Features

Table 23 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

*Hydrologic soil groups* are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the

soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

*Water table* refers to a saturated zone in the soil. Table 23 indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

*Ponding* is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 23 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

*Flooding* is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

*Duration* and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal

weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

## Soil Features

Table 24 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

*Potential for frost action* is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

*Risk of corrosion* pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.



# Classification of the Soils

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The system of soil classification used by the National Cooperative Soil Survey has six categories (USDA, 1975). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 25 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

**ORDER.** Eleven soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Mollisol.

**SUBORDER.** Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Xeroll (*Xer*, meaning dry, plus *oll*, from Mollisol).

**GREAT GROUP.** Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Argixerolls (*Argi*, meaning presence of an argillic horizon, plus *xeroll*, the suborder of the Mollisols that has a xeric moisture regime or an aridic moisture regime that borders on xeric).

**SUBGROUP.** Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Pachic* identifies the extragrade subgroup that has a thick, dark epipedon with no evidence of new material at the surface. An example is Pachic Argixerolls.

**FAMILY.** Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, frigid Pachic Argixerolls.

**SERIES.** The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. An example of a soil with the taxonomic classification given above is the Hades series.

## Taxonomic Units and Their Morphology

In this section, each major taxonomic unit recognized in the survey area is described. These taxonomic units are soil series, taxadjuncts to soil series, and higher category soils. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (USDA, 1975) and in "Keys to Soil Taxonomy" (Soil Survey Staff, 1994). Unless otherwise indicated, colors in the descriptions are for dry soil. Following the pedon description is the range of important characteristics of the soils in the series.

The map units of each taxonomic unit are described in the section "Detailed Soil Map Units."

### Airport Series

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Calcareous, silty alluvium

*Slope:* 0 to 3 percent

*Elevation:* 4,440 to 4,460 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 120 to 140 days

**Taxonomic classification:** Fine-silty, mixed, mesic Aquic Natrixerolls

#### Typical Pedon

Airport silty clay loam, 0 to 3 percent slopes; in adjacent Cache County, Utah; about 400 feet south and 1,100 feet west of the northeast corner of sec. 6, T. 12 N., R. 1 E.

A—0 to 4 inches; gray (10YR 5/1) silty clay loam, very dark gray (10YR 3/1) moist; weak thin and medium platy structure; slightly hard, friable, moderately sticky, moderately plastic; many fine roots; common fine pores; strongly effervescent; slightly alkaline (pH 7.7); clear smooth boundary.

B<sub>tn</sub>—4 to 11 inches; gray (10YR 5/1) silty clay loam, very dark gray (10YR 3/1) moist; moderate medium prismatic structure parting to moderate medium subangular blocky; very hard, firm, very sticky, very plastic; common fine roots; many fine pores; continuous clay films on faces of peds; slightly effervescent; moderately alkaline (pH 8.0); clear smooth boundary.

B<sub>tkn</sub>—11 to 16 inches; light brownish gray (2.5Y 6/2) silty clay loam, grayish brown (2.5Y 5/2) moist; weak medium prismatic structure; very hard, firm, moderately sticky, moderately plastic; few fine roots; many fine pores; clay films lining pores; strongly effervescent; very strongly alkaline (pH 9.2); clear smooth boundary.

B<sub>k1</sub>—16 to 25 inches; light gray (2.5Y 7/2) silty clay loam, light brownish gray (2.5Y 6/2) moist; massive; extremely hard, firm, moderately sticky, moderately plastic; many fine pores; violently effervescent; very strongly alkaline (pH 9.7); clear smooth boundary.

B<sub>k2</sub>—25 to 60 inches; light gray (10YR 7/2) silty clay loam, light brownish gray (10YR 6/2) moist; massive; hard, firm, moderately sticky, moderately plastic; many fine pores; common medium distinct brownish yellow (10YR 6/6) irregularly shaped



## Soil Survey of Franklin County Area, Idaho

masses of iron accumulation; violently effervescent; very strongly alkaline (pH 9.9).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 14 inches

Depth to a natric horizon—4 to 12 inches

#### *Water features*

Seasonal high water table: Month(s)—April, May, June, July, August, and September; depth—2.0 to 3.0 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *A horizon*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Calcium carbonate equivalent—5 to 25 percent

Sodium adsorption ratio—5 to 15

Electrical conductivity (mmhos/cm)—4 to 32

Reaction—pH of 7.4 to 8.4

#### *B<sub>tn</sub> and B<sub>tkn</sub> horizons*

Hue—10YR or 2.5Y

Value—4 to 6 dry, 3 to 5 moist

Chroma—1 to 3 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Calcium carbonate equivalent—25 to 40 percent

Sodium adsorption ratio—15 to 40

Electrical conductivity (mmhos/cm)—4 to 32

Reaction—pH of 8.5 to 9.0

#### *B<sub>k</sub> horizons*

Hue—10YR or 2.5Y

Value—5 to 8 dry or moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Calcium carbonate equivalent—25 to 40 percent

Sodium adsorption ratio—15 to 40

Electrical conductivity (mmhos/cm)—4 to 32

Reaction—pH of 8.5 to 9.0

## Ant Flat Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (K<sub>sat</sub>):* Moderately low

## Soil Survey of Franklin County Area, Idaho

*Landscape:* Lake plains

*Landform:* Lake plains and lake terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 20 percent

*Elevation:* 4,700 to 5,500 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 90 to 120 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Calcic Argixerolls

### Typical Pedon

Ant Flat silty clay loam, 0 to 2 percent slopes; about 4 miles north and 1 mile west of Preston, in Franklin County, Idaho; about 2,760 feet south and 1,200 feet east of the northwest corner of sec. 33, T. 14 S., R. 39 E.

Ap—0 to 8 inches; brown (7.5YR 4/2) silty clay loam, dark brown (7.5YR 3/2) moist; weak medium subangular blocky structure parting to weak fine granular; very hard, firm, slightly sticky, slightly plastic; common very fine and fine roots; slightly alkaline (pH 7.7); clear smooth boundary.

AB—8 to 16 inches; reddish brown (5YR 4/3) clay loam, dark reddish brown (5YR 3/3) moist; weak fine subangular blocky structure parting to weak medium granular; very hard, firm, slightly sticky, slightly plastic; few very fine and fine roots; slightly alkaline (pH 7.7); abrupt smooth boundary.

Bt—16 to 24 inches; reddish brown (5YR 5/3) clay, dark reddish brown (5YR 3/4) moist; moderate medium subangular blocky structure; very hard, very friable, very sticky, very plastic; few very fine and fine roots; common distinct clay films on faces of peds and lining pores; slightly alkaline (pH 7.6); abrupt smooth boundary.

Btk—24 to 29 inches; light reddish brown (5YR 6/4) clay, reddish brown (5YR 5/4) moist; moderate medium subangular blocky structure; very hard, very friable, very sticky, very plastic; few very fine roots; few faint clay films on faces of peds and lining pores; 3-centimeter-wide cracks filled with surface material; many fine irregular carbonate threads and masses; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bk1—29 to 33 inches; pink (5YR 7/3) clay, reddish brown (5YR 4/4) moist; moderate medium subangular blocky structure; very hard, very firm, very sticky, very plastic; few very fine roots; 2-centimeter-wide cracks filled with surface material in the upper part of the horizon; many fine and medium irregular carbonate threads; violently effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

Bk2—33 to 42 inches; light reddish brown (5YR 6/4) clay, brown (7.5YR 5/4) moist; weak medium subangular blocky structure; very hard, very firm, very sticky, very plastic; many fine and medium carbonate threads and masses; violently effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bk3—42 to 53 inches; pink (5YR 7/3) clay loam, light brown (7.5YR 6/4) moist; weak fine subangular blocky structure; very hard, very firm, slightly sticky, slightly plastic; common fine irregular carbonate masses; violently effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

Bk4—53 to 57 inches; pinkish gray (5YR 7/2) silty clay loam, yellowish red (5YR 5/6) moist; massive; hard, firm, slightly sticky, slightly plastic; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

Bk5—57 to 60 inches; pink (5YR 7/3) clay loam, brown (7.5YR 5/4) moist; massive; hard, firm, slightly sticky, slightly plastic; disseminated carbonates; moderately alkaline (pH 8.0).

**Range in Characteristics**

*Depth to a restrictive feature:* More than 60 inches

*Diagnostic features*

Thickness of the mollic epipedon—10 to 18 inches

Depth to an argillic horizon—5 to 16 inches

Depth to a calcic horizon—18 to 30 inches

*Ap horizon*

Hue—7.5YR or 5YR

Value—3 or 4 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Content of rock fragments—0 to 3 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

*AB and Bt horizons*

Hue—7.5YR or 5YR

Value—4 to 6 dry, 3 to 5 moist

Chroma—3 to 6 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—clay loam or clay

Content of clay—35 to 55 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—0 to 3 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

*Btk and Bk horizons*

Hue—7.5YR or 5YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—2 to 4 dry, 4 to 6 moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam, clay loam, or clay

Content of clay—27 to 55 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—15 to 35 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

**Arbone Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Alluvial plains

*Landform:* Fan remnants

*Parent material:* Mixed alluvium

*Slope:* 0 to 4 percent

*Elevation:* 4,900 to 5,100 feet

## Soil Survey of Franklin County Area, Idaho

*Mean annual precipitation:* 12 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 90 to 100 days

**Taxonomic classification:** Coarse-loamy, mixed, frigid Calcic Haploxerolls

### Typical Pedon

Arbone loam, 0 to 4 percent slopes; about 1 mile west and 1 mile south of Thatcher, in Franklin County, Idaho; about 1,350 feet south and 300 feet west of the northeast corner of sec. 11, T. 12 S., R. 40 E.

Ap—0 to 8 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and fine roots; common fine tubular pores; slightly alkaline (pH 7.5); clear wavy boundary.

A—8 to 12 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common fine tubular pores; disseminated carbonates; slightly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

Bw—12 to 21 inches; yellowish brown (10YR 5/4) loam, dark yellowish brown (10YR 3/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few fine roots; few fine tubular pores; slightly alkaline (pH 7.8); gradual wavy boundary.

Bk1—21 to 32 inches; pale brown (10YR 6/3) silt loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few fine roots; few fine tubular pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.1); gradual wavy boundary.

Bk2—32 to 60 inches; very pale brown (10YR 7/4) fine sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky, slightly plastic; few very fine roots; few very fine tubular pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 19 inches

Depth to a calcic horizon—12 to 25 inches

#### *Ap and A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—13 to 18 percent

Content of rock fragments—0 to 12 percent gravel

Reaction—pH of 7.4 to 8.4

#### *Bw horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—13 to 18 percent

## Soil Survey of Franklin County Area, Idaho

Content of rock fragments—0 to 15 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

### *Bk horizons*

Hue—10YR

Value—5 to 8 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam or silt loam

Content of clay—8 to 18 percent

Content of rock fragments—0 to 18 percent gravel

Calcium carbonate equivalent—15 to 30 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

## **Bancroft Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Loess

*Slope:* 6 to 15 percent

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 70 to 80 days

**Taxonomic classification:** Fine-silty, mixed, frigid Calcic Argixerolls

### **Typical Pedon**

Bancroft silt loam, in an area of Manila-Bancroft complex, 6 to 15 percent slopes; about 3 miles north and 1 mile west of the town of Swan Lake, in Bannock County, Idaho; about 447 feet north and 1,115 feet west of the southeast corner of sec. 21, T. 10 S., R. 38 E.

Ap—0 to 7 inches; brown (10YR 5/3) silt loam, very dark grayish brown (10YR 3/2) moist; weak medium and coarse subangular blocky structure parting to weak fine granular; hard, very friable, slightly sticky, slightly plastic; many very fine roots; many very fine irregular and common very fine tubular pores; slightly acid (pH 6.2); abrupt smooth boundary.

Bt1—7 to 17 inches; brown (10YR 5/3) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate coarse subangular blocky structure parting to weak fine subangular blocky; extremely hard, friable, moderately sticky, moderately plastic; common very fine roots; many very fine and few fine and medium tubular pores; many faint clay films on faces of peds and lining pores; slightly acid (pH 6.4); gradual wavy boundary.

Bt2—17 to 23 inches; yellowish brown (10YR 5/4) silty clay loam, dark yellowish brown (10YR 3/4) moist; moderate coarse angular blocky structure parting to moderate medium angular blocky; extremely hard, friable, moderately sticky, moderately plastic; few very fine roots; many very fine and few fine and medium tubular pores; many distinct clay films on faces of peds and lining pores; neutral (pH 6.7); gradual wavy boundary.

## Soil Survey of Franklin County Area, Idaho

- Bt3**—23 to 37 inches; yellowish brown (10YR 5/4) silty clay loam, dark yellowish brown (10YR 4/4) moist; weak coarse angular blocky structure parting to moderate fine and medium angular blocky; extremely hard, firm, moderately sticky, moderately plastic; few very fine roots; many very fine tubular pores; many faint clay films on faces of peds and lining pores; about 5 percent hard cicada krotovinas; neutral (pH 7.1); abrupt wavy boundary.
- Btk**—37 to 41 inches; light yellowish brown (10YR 6/4) silt loam, dark yellowish brown (10YR 4/4) moist; weak coarse angular blocky structure parting to weak medium subangular blocky; extremely hard, firm, slightly sticky, slightly plastic; few very fine roots; many very fine and few fine tubular pores; common faint clay films on faces of peds and lining pores; slightly effervescent; slightly alkaline (pH 7.4); clear smooth boundary.
- Bk1**—41 to 58 inches; very pale brown (10YR 7/3) silt loam, yellowish brown (10YR 5/4) moist; massive; extremely hard, firm, slightly sticky, slightly plastic; many very fine and common fine tubular pores; many fine carbonate threads; violently effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.
- Bk2**—58 to 60 inches; pale brown (10YR 6/3) silt loam, dark yellowish brown (10YR 4/4) moist; massive; hard, firm, slightly sticky, slightly plastic; many very fine and common fine tubular pores; common fine carbonate threads; strongly effervescent; slightly alkaline (pH 7.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 19 inches

Depth to an argillic horizon—7 to 20 inches

Depth to a calcic horizon—19 to 41 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—15 to 20 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.1 to 7.3

#### *Bt horizons*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—18 to 32 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.1 to 7.8

#### *Btk and Bk horizons*

Hue—10YR

Value—6 or 7 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam



Content of clay—10 to 20 percent  
Calcium carbonate equivalent—15 to 30 percent  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 9.0

## Banida Series

*Depth class:* Very deep  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Landscape:* Lake plains  
*Landform:* Lake terraces  
*Parent material:* Lacustrine deposits  
*Slope:* 0 to 30 percent  
*Elevation:* 4,700 to 5,200 feet  
*Mean annual precipitation:* 15 to 18 inches  
*Mean annual air temperature:* 42 to 45 degrees F  
*Frost-free period:* 90 to 110 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Vertic Xerochrepts

### Typical Pedon

Banida silty clay loam, 0 to 2 percent slopes (fig. 16); about 8.5 miles northeast of Preston, in Franklin County, Idaho; about 1,800 feet north and 1,800 feet west of the southeast corner of sec. 12, T. 14 S., R. 39 E.

- Ap—0 to 6 inches; brown (7.5YR 5/2) silty clay loam, dark brown (7.5YR 3/2) moist; moderate medium granular structure; slightly hard, firm, moderately sticky, moderately plastic; common very fine and fine and few coarse roots; slightly alkaline (pH 7.8); clear smooth boundary.
- AB—6 to 9 inches; brown (7.5YR 5/2) silty clay, dark reddish gray (5YR 4/2) moist; moderate fine and medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine and fine and few coarse roots; slightly alkaline (pH 7.8); abrupt smooth boundary.
- Bw1—9 to 22 inches; reddish brown (5YR 4/3) silty clay, dark reddish brown (5YR 3/4) moist; weak medium prismatic structure parting to strong fine angular blocky; very hard, very firm, very sticky, very plastic; few fine roots; common 1-to-1.5-centimeter-wide vertical cracks filled with brown (7.5YR 5/2) surface material; moderately alkaline (pH 7.9); clear wavy boundary.
- Bw2—22 to 29 inches; reddish brown (5YR 5/3) silty clay, reddish brown (5YR 4/4) moist; moderate medium subangular blocky structure; very hard, very firm, very sticky, very plastic; few very fine roots; common 1-to-2.5-centimeter-wide vertical cracks filled with brown (7.5YR 5/2) surface material; slightly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.
- Bw3—29 to 35 inches; reddish brown (5YR 5/3) silty clay, reddish brown (5YR 4/4) moist; moderate medium subangular blocky structure parting to moderate fine angular blocky; very hard, very firm, very sticky, very plastic; few very fine roots; common 1-to-4-centimeter-wide vertical cracks filled with brown (7.5YR 5/2) surface material; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.1); clear smooth boundary.
- Bk1—35 to 40 inches; light reddish brown (5YR 6/4) silty clay, reddish brown (5YR 5/4) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; very hard, very firm, very sticky, very plastic; few very fine roots; few fine





Figure 16.—Typical profile of Banida silty clay loam, 0 to 2 percent slopes. The scale is in decimeters.

carbonate threads; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bk2—40 to 64 inches; light brown (7.5YR 6/4) silty clay, reddish brown (5YR 5/4) moist; massive; hard, firm, very sticky, very plastic; few fine distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.4).

**Range in Characteristics**

*Depth to a restrictive feature:* More than 60 inches

*Diagnostic feature*

Depth to secondary carbonates—20 to 36 inches

*Ap horizon*

Hue—7.5YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—32 to 39 percent

Content of rock fragments—0 to 3 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

*AB and Bw horizons*

Hue—7.5YR or 5YR

Value—4 to 6 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay or clay

Content of clay—40 to 55 percent

Calcium carbonate equivalent—0 to 15 percent

Content of gypsum—0 to 5 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

*Bk horizons*

Hue—7.5YR or 5YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 percent

Texture of the fraction less than 2 millimeters in size—silty clay or clay

Content of clay—40 to 55 percent

Calcium carbonate equivalent—5 to 15 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.4 to 8.4

**Battle Creek Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained or well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 0 to 8 percent

*Elevation:* 4,400 to 4,800 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 49 degrees F

*Frost-free period:* 120 to 130 days

**Taxonomic classification:** Fine, mixed, mesic Vertic Argixerolls

**Typical Pedon**

Battle Creek silty clay loam, 0 to 2 percent slopes; about 2.5 miles west of Franklin, in Franklin County, Idaho; about 2,640 feet north and 500 feet east of the southwest corner of sec. 24, T. 16 S., R. 39 E.

- Ap—0 to 8 inches; brown (10YR 5/3) silty clay loam, very dark brown (10YR 2/2) moist; weak medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; many very fine and few medium roots; slightly alkaline (pH 7.6); abrupt smooth boundary.
- AB—8 to 11 inches; light yellowish brown (10YR 6/4) silty clay, brown (7.5YR 4/4) moist; weak medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; many very fine and common fine roots; disseminated carbonates; slightly effervescent; slightly alkaline (pH 7.8); abrupt smooth boundary.
- Bt—11 to 19 inches; light brown (7.5YR 6/4) silty clay, brown (7.5YR 4/4) moist; weak medium subangular blocky structure; very hard, firm, very sticky, very plastic; common very fine and few fine roots; few faint clay films on faces of peds and lining pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.0); gradual smooth boundary.
- Btk—19 to 40 inches; pink (7.5YR 7/4) silty clay, light brown (7.5YR 6/4) moist; moderate medium prismatic structure parting to moderate medium subangular blocky; very hard, very firm, very sticky, very plastic; few very fine and fine roots; common distinct clay films on faces of peds and lining pores; many distinct carbonate masses; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- Bk—40 to 60 inches; pink (7.5YR 7/4) silty clay, brown (7.5YR 4/4) moist; weak fine prismatic structure parting to weak medium subangular blocky; extremely hard, very firm, very sticky, very plastic; few very fine and fine roots; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.6).

**Range in Characteristics**

*Depth to a restrictive feature:* More than 60 inches

*Diagnostic features*

- Thickness of the mollic epipedon—8 to 15 inches
- Depth to an argillic horizon—10 to 14 inches
- Depth to a calcic horizon—12 to 24 inches

*Water feature*

- Seasonal high water table: Month(s)—March, April, May, June, July, and August;
- depth—3.5 to 6.0 feet

*Ap horizon*

- Hue—10YR or 7.5YR
- Value—4 or 5 dry, 2 or 3 moist
- Chroma—2 or 3 dry or moist
- Content of organic matter—2 to 4 percent
- Texture of the fraction less than 2 millimeters in size—silty clay loam
- Content of clay—32 to 40 percent
- Calcium carbonate equivalent—0 to 5 percent
- Sodium adsorption ratio—0 to 2
- Electrical conductivity (mmhos/cm)—0 to 2
- Reaction—pH of 7.4 to 7.8



## Soil Survey of Franklin County Area, Idaho

### *AB horizon*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 4 to 6 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—2 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay  
Content of clay—32 to 45 percent  
Calcium carbonate equivalent—0 to 5 percent  
Sodium adsorption ratio—0 to 2  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 8.4

### *Bt horizon*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 4 to 6 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay or clay  
Content of clay—40 to 60 percent  
Calcium carbonate equivalent—0 to 5 percent  
Sodium adsorption ratio—0 to 2  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 8.4

### *Btk horizon*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 4 to 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay or clay  
Content of clay—40 to 60 percent  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—0 to 2  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 8.4

### *Bk horizon*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 4 to 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay  
Content of clay—35 to 55 percent  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—2 to 8  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

### **Taxadjunct Feature**

The Battle Creek soil in map unit 141 (Trenton-Battle Creek complex, cool, 0 to 2 percent slopes) is a taxadjunct to the series because it has a frigid soil temperature regime. This difference, however, does not affect the use and management of the soil.

## Bear Lake Series

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Plains

*Landform:* Flood plains

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,600 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Fine-silty, frigid Typic Calciaquolls

### Typical Pedon

Bear Lake silty clay loam, in an area of Bear Lake-Downata complex, 0 to 1 percent slopes; about 1.5 miles east of Oxford, in Franklin County, Idaho; about 2,500 feet south and 2,300 feet east of the northwest corner of sec. 26, T. 13 S., R. 38 E.

A—0 to 11 inches; very dark gray (10YR 3/1) silty clay loam, black (10YR 2/1) moist; weak fine subangular blocky structure parting to moderate fine granular; hard, friable, moderately sticky, moderately plastic; many very fine and fine roots; disseminated carbonates; strongly effervescent; slightly alkaline (pH 7.6); clear smooth boundary.

Bkg1—11 to 20 inches; gray (10YR 6/1) silty clay loam, dark gray (10YR 4/1) moist; weak fine subangular blocky structure; slightly hard, very friable, moderately sticky, moderately plastic; many very fine and common fine roots; few hard carbonate nodules; disseminated carbonates (40 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.6); clear wavy boundary.

Bkg2—20 to 26 inches; light gray (10YR 7/1) silty clay loam, gray (10YR 6/1) and light gray (2.5Y 7/2) moist; massive; slightly hard, very friable, moderately sticky, moderately plastic; common very fine and fine roots; common fine prominent pale olive (5Y 6/4) irregularly shaped masses of iron accumulation; 20 percent, by volume, hard carbonate nodules; disseminated carbonates (30 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.8); gradual wavy boundary.

Bkg3—26 to 60 inches; light gray (2.5Y 7/1) silty clay loam, gray (N 6/0) and olive gray (5Y 5/2) crushed and moist; massive; slightly hard, very friable, moderately sticky, moderately plastic; common very fine and few fine roots; common medium prominent light olive brown (2.5Y 5/4) and common fine faint pale olive (5Y 6/4) irregularly shaped masses of iron accumulation; less than 5 percent, by volume, hard carbonate nodules; disseminated carbonates (30 percent calcium carbonate equivalent); slightly effervescent; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—9 to 22 inches

Depth to a calcic horizon—6 to 16 inches

Aquic conditions

## Soil Survey of Franklin County Area, Idaho

### *Water features*

Seasonal high water table: Month(s)—February, March, April, May, June, and July; depth—0.0 to 1.5 feet

Ponding: Month(s)—February, March, April, May, June, and July; frequency—occasional; duration—brief; depth—0.0 to 0.5 foot

Flooding: Month(s)—January, February, March, April, May, and June; frequency—frequent or occasional; duration—brief

### *A horizon*

Hue—10YR, 2.5Y, or N

Value—2 to 5 dry, 2 or 3 moist

Chroma—0 to 2 dry or moist

Content of organic matter—3 to 7 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—28 to 34 percent

Calcium carbonate equivalent—15 to 35 percent

Sodium adsorption ratio—0 to 2

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

### *Bkg1 horizon*

Hue—10YR, 2.5Y, 5Y, or N

Value—5 to 8 dry, 4 to 7 moist

Chroma—0 to 2 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—28 to 34 percent

Calcium carbonate equivalent—15 to 40 percent

Sodium adsorption ratio—0 to 2

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 8.4

### *Bkg2 and Bkg3 horizons*

Hue—10YR, 2.5Y, 5Y, or N

Value—5 to 8 dry, 4 to 7 moist

Chroma—0 to 2 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—15 to 34 percent

Calcium carbonate equivalent—0 to 35 percent

Sodium adsorption ratio—0 to 2

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

## **Bearhollow Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Mixed alluvium

*Slope:* 6 to 35 percent

*Elevation:* 5,200 to 5,600 feet

*Mean annual precipitation:* 13 to 16 inches

## Soil Survey of Franklin County Area, Idaho

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Coarse-loamy, mixed, frigid Calcixerollic Xerochrepts

### Typical Pedon

Bearhollow gravelly loam, in an area of Thatcher-Bearhollow complex, 6 to 20 percent slopes; about 1 mile south and 5 miles west of Weston, in Franklin County, Idaho; about 1,600 feet south and 500 feet west of the northeast corner of sec. 30, T. 16 S., R. 38 E.

Ap—0 to 4 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine roots; many very fine and fine tubular pores; disseminated carbonates; slightly effervescent; 30 percent gravel; moderately alkaline (pH 8.0); abrupt smooth boundary.

A—4 to 9 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; many very fine and fine tubular pores; disseminated carbonates; strongly effervescent; 25 percent gravel; moderately alkaline (pH 8.2); clear wavy boundary.

Bk1—9 to 22 inches; very pale brown (10YR 7/3) gravelly loam, brown (10YR 5/3) moist; weak coarse subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine and fine roots; common very fine tubular pores; disseminated carbonates; violently effervescent; 25 percent gravel; moderately alkaline (pH 8.4); clear wavy boundary.

Bk2—22 to 43 inches; very pale brown (10YR 8/3) gravelly loam, very pale brown (10YR 7/3) moist; massive; slightly hard, friable, slightly sticky, nonplastic; few very fine roots; common very fine and fine tubular pores; disseminated carbonates; violently effervescent; 30 percent gravel; strongly alkaline (pH 8.6); gradual wavy boundary.

Bk3—43 to 60 inches; light gray (2.5Y 7/2) gravelly loam, light brownish gray (2.5Y 6/2) moist; massive; slightly hard, friable, slightly sticky, nonplastic; common very fine and fine tubular pores; disseminated carbonates; violently effervescent; 25 percent gravel; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the ochric epipedon—4 to 9 inches

Depth to a calcic horizon—4 to 9 inches

#### *Ap and A horizons*

Hue—10YR

Value—5 to 7 dry, 4 or 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—13 to 18 percent

Content of rock fragments—9 to 34 percent gravel

Calcium carbonate equivalent—5 to 15 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 8.4

#### *Bk horizons*

Hue—10YR or 2.5Y



## Soil Survey of Franklin County Area, Idaho

Value—6 to 8 dry, 5 to 7 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—10 to 16 percent  
Content of rock fragments—9 to 34 percent gravel  
Calcium carbonate equivalent—10 to 25 percent  
Sodium adsorption ratio—0 to 13  
Reaction—pH of 7.9 to 9.0

### Bergquist Series

*Depth class:* Deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Landscape:* Mountains  
*Landform:* Mountain slopes  
*Parent material:* Mixed colluvium and residuum  
*Slope:* 15 to 75 percent  
*Elevation:* 4,900 to 6,600 feet  
*Mean annual precipitation:* 16 to 18 inches  
*Mean annual air temperature:* 42 to 46 degrees F  
*Frost-free period:* 60 to 90 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Typic Haploxerolls

#### Typical Pedon

Bergquist very gravelly loam, in an area of Bergquist-Softback complex, 25 to 65 percent slopes; about 4 miles northwest of the Oneida Narrows Dam, in Franklin County, Idaho; about 1,400 feet north and 700 feet east of the southwest corner of sec. 28, T. 12 S., R. 40 E.

- A—0 to 5 inches; grayish brown (10YR 5/2) very gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine to medium and few coarse roots; 35 percent gravel and 5 percent cobbles; neutral (pH 7.3); abrupt wavy boundary.
- Bw—5 to 12 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium and few coarse roots; 35 percent gravel and 15 percent cobbles; neutral (pH 7.3); clear wavy boundary.
- C1—12 to 25 inches; reddish yellow (7.5YR 6/6) extremely gravelly sandy loam, brown (7.5YR 5/4) moist; massive; soft, very friable, nonsticky, nonplastic; common very fine and few fine to coarse roots; 50 percent gravel and 20 percent cobbles; neutral (pH 7.3); clear wavy boundary.
- C2—25 to 54 inches; reddish yellow (7.5YR 6/6) extremely gravelly sandy loam, strong brown (7.5YR 5/6) moist; massive; soft, very friable, nonsticky, nonplastic; few very fine to coarse roots; 60 percent gravel and 20 percent cobbles; neutral (pH 7.2); clear wavy boundary.
- R—54 inches; quartzite.

#### Range in Characteristics

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

#### *Diagnostic feature*

Thickness of the mollic epipedon—10 to 19 inches

## Soil Survey of Franklin County Area, Idaho

### *A horizon*

Hue—10YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—7 to 18 percent  
Content of rock fragments—25 to 45 percent gravel, 0 to 10 percent cobbles  
Reaction—pH of 6.6 to 7.8

### *Bw horizon*

Hue—10YR or 7.5YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam or sandy loam  
Content of clay—5 to 18 percent  
Content of rock fragments—35 to 55 percent gravel, 10 to 20 percent cobbles  
Reaction—pH of 6.6 to 7.8

### *C horizons*

Hue—10YR or 7.5YR  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—4 to 6 dry or moist  
Content of organic matter—0.0 to 1 percent  
Texture of the fraction less than 2 millimeters in size—sandy loam  
Content of clay—3 to 12 percent  
Content of rock fragments—28 to 73 percent gravel, 6 to 25 percent cobbles  
Reaction—pH of 6.6 to 7.8

## **Bothwell Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Alluvial plains and hills

*Landform:* Fan remnants and hillslopes

*Parent material:* Silty alluvium and loess

*Slope:* 4 to 30 percent

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 60 to 100 days

**Taxonomic classification:** Fine-silty, mixed, frigid Pachic Argixerolls

### **Typical Pedon**

Bothwell silt loam, 4 to 12 percent slopes; about 4 miles north and 6 miles east of Preston, in Franklin County, Idaho; about 1,800 feet south and 1,000 feet west of the northeast corner of sec. 35, T. 14 S., R. 40 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, black (10YR 2/1) moist; weak very fine, fine, and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; common very fine and fine and few medium tubular pores; 2 percent gravel; neutral (pH 7.0); clear wavy boundary.

## Soil Survey of Franklin County Area, Idaho

- BA—6 to 13 inches; dark grayish brown (10YR 4/2) silt loam, black (10YR 2/1) moist; weak coarse subangular blocky structure; hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine to medium tubular pores; 1 percent gravel; neutral (pH 7.0); gradual wavy boundary.
- Bt1—13 to 25 inches; dark grayish brown (10YR 4/2) silt loam, black (10YR 2/1) moist; moderate fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine and fine roots; common very fine to medium tubular and few coarse vesicular pores; common faint clay films on faces of peds and lining pores; 1 percent gravel; neutral (pH 7.2); gradual wavy boundary.
- Bt2—25 to 36 inches; brown (10YR 5/3) silty clay loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; few very fine roots; common very fine to medium tubular and few coarse vesicular pores; common distinct clay films on faces of peds and lining pores; 2 percent gravel; neutral (pH 7.2); clear wavy boundary.
- Bt3—36 to 45 inches; pale brown (10YR 6/3) silty clay loam, brown (10YR 4/3) moist; weak fine and medium prismatic structure; slightly hard, friable, moderately sticky, moderately plastic; few very fine roots; common very fine and fine tubular pores; many distinct clay films on faces of peds and lining pores; 1 percent gravel; neutral (pH 7.2); gradual wavy boundary.
- BC—45 to 60 inches; pale brown (10YR 6/3) silt loam, dark grayish brown (10YR 4/2) moist; weak fine prismatic structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots; common very fine and fine tubular pores; 3 percent gravel; neutral (pH 7.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 45 inches

Depth to an argillic horizon—6 to 12 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—3 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—16 to 22 percent

Content of rock fragments—0 to 3 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

#### *BA and Bt1 horizons*

Hue—10YR

Value—4 to 7 dry, 2 to 4 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—22 to 35 percent

Content of rock fragments—0 to 3 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

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### *Bt2 and Bt3 horizons*

Hue—10YR  
Value—4 to 7 dry, 2 to 4 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—28 to 35 percent  
Content of rock fragments—0 to 3 percent gravel  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 6.6 to 8.4

### *BC horizon*

Hue—10YR  
Value—4 to 7 dry, 3 or 4 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—18 to 35 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 15 percent  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 6.6 to 8.4

## **Brifox Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Landscape:* Hills and lake plains

*Landform:* Hillslopes and lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 1 to 35 percent

*Elevation:* 4,900 to 5,600 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Chromic Calcixererts

### **Typical Pedon**

Brifox silty clay, in an area of Brifox-Huffman complex, 12 to 30 percent slopes; about 3 miles west of Thatcher, in Franklin County, Idaho; about 2,000 feet south and 1,300 feet west of the northeast corner of sec. 3, T. 12 S., R. 40 E.

Ap—0 to 7 inches; light brownish gray (2.5Y 6/2) silty clay, dark grayish brown (2.5Y 4/2) moist; weak fine subangular blocky structure; slightly hard, friable, very sticky, moderately plastic; common very fine and few fine roots; disseminated carbonates (13 percent calcium carbonate equivalent); strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

Bw—7 to 12 inches; light brownish gray (2.5Y 6/2) silty clay, dark grayish brown (2.5Y 4/2) moist; moderate fine subangular blocky structure; hard, firm, very sticky, moderately plastic; common very fine roots; few fine carbonate masses and threads; disseminated carbonates (14 percent calcium carbonate equivalent); violently effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

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- Bss**—12 to 18 inches; light brownish gray (2.5Y 6/2) silty clay, dark grayish brown (2.5Y 4/2) moist; moderate fine prismatic structure; hard, firm, very sticky, moderately plastic; few very fine roots; few very fine irregular pores; few intersecting slickensides; few fine carbonate masses and threads (14 percent calcium carbonate equivalent); violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.
- Bkss1**—18 to 28 inches; light gray (2.5Y 7/2) silty clay, grayish brown (2.5Y 5/2) moist; weak fine prismatic structure; hard, firm, very sticky, moderately plastic; few very fine roots; few very fine irregular pores; few intersecting slickensides; common fine carbonate masses and threads; disseminated carbonates (19 percent calcium carbonate equivalent); violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.
- Bkss2**—28 to 55 inches; light gray (2.5Y 7/2) silty clay, dark grayish brown (2.5Y 4/2) moist; weak fine prismatic structure; hard, firm, very sticky, moderately plastic; few intersecting slickensides; common fine carbonate masses and threads; disseminated carbonates (14 percent calcium carbonate equivalent); violently effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.
- Bk**—55 to 60 inches; light gray (2.5Y 7/2) silty clay, grayish brown (2.5Y 5/2) moist; moderate fine subangular blocky structure; hard, firm, very sticky, moderately plastic; common fine carbonate masses and threads; disseminated carbonates (14 percent calcium carbonate equivalent); violently effervescent; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Depth to a calcic horizon—12 to 30 inches

#### *Ap horizon*

Hue—10YR or 2.5Y

Value—5 or 6 dry, 3 to 5 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay

Content of clay—40 to 50 percent

Calcium carbonate equivalent—10 to 20 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 4

Reaction—pH of 7.4 to 8.4

#### *Bw and Bss horizons*

Hue—10YR or 2.5Y

Value—5 to 8 dry, 4 or 5 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay

Content of clay—35 to 50 percent

Calcium carbonate equivalent—10 to 20 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 4

Reaction—pH of 7.4 to 8.4

#### *Bkss and Bk horizons*

Hue—10YR or 2.5Y

Value—5 to 7 dry, 4 to 6 moist

## Soil Survey of Franklin County Area, Idaho

Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam, silty clay, or clay  
Content of clay—38 to 60 percent  
Calcium carbonate equivalent—20 to 35 percent  
Content of gypsum—0 to 15 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 7.4 to 8.4

### Broadhead Taxadjunct

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Landscape:* Hills and mountains  
*Landform:* Hillslopes and mountain slopes  
*Parent material:* Mixed alluvium and colluvium  
*Slope:* 4 to 50 percent  
*Elevation:* 5,000 to 6,900 feet  
*Mean annual precipitation:* 15 to 28 inches  
*Mean annual air temperature:* 41 to 44 degrees F  
*Frost-free period:* 55 to 100 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Vertic Argixerolls

#### Typical Pedon

Broadhead silt loam, in an area of Manila-Broadhead complex, 12 to 30 percent slopes; about 1 mile south and 7 miles west of Weston, in Franklin County, Idaho; about 1,500 feet south and 1,500 feet east of the northwest corner of sec. 24, T. 16 S., R. 37 E.

- Ap—0 to 7 inches; grayish brown (10YR 5/2) silt loam, very dark brown (10YR 2/2) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; many very fine and fine and common medium roots; common very fine and fine tubular pores; neutral (pH 7.0); clear wavy boundary.
- Bt1—7 to 10 inches; grayish brown (10YR 5/2) silty clay loam, very dark brown (10YR 2/2) moist; moderate fine angular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; many very fine and common fine roots; common very fine and few fine tubular pores; common faint and few distinct clay films on faces of peds; neutral (pH 7.0); clear wavy boundary.
- Bt2—10 to 22 inches; brown (10YR 5/3) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium prismatic structure; hard, friable, very sticky, moderately plastic; common very fine and fine roots; common very fine and few fine tubular pores; many distinct and common prominent clay films on faces of peds and lining pores; neutral (pH 7.0); clear wavy boundary.
- Bt3—22 to 37 inches; brown (10YR 5/3) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse prismatic structure; hard, friable, very sticky, moderately plastic; common very fine and few fine roots; common very fine and few fine tubular pores; many distinct and common prominent clay films on faces of peds and lining pores; neutral (pH 7.2); clear wavy boundary.
- Bt4—37 to 60 inches; pale brown (10YR 6/3) silty clay loam, dark yellowish brown (10YR 4/4) moist; weak fine prismatic structure; hard, firm, very sticky,

## Soil Survey of Franklin County Area, Idaho

moderately plastic; common very fine roots; common very fine tubular pores; common faint and few distinct clay films on faces of peds and lining pores; neutral (pH 7.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 40 inches

Depth to an argillic horizon—6 to 15 inches

#### *Ap horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—15 to 25 percent

Content of rock fragments—0 to 9 percent gravel, 0 to 3 percent cobbles

Reaction—pH of 5.6 to 7.3

#### *Bt1 horizon*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—25 to 35 percent

Content of rock fragments—0 to 9 percent gravel, 0 to 3 percent cobbles

Reaction—pH of 6.1 to 7.3

#### *Bt2, Bt3, and Bt4 horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 2 to 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay

Content of clay—35 to 50 percent

Content of rock fragments—0 to 9 percent gravel, 0 to 3 percent cobbles

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 6.1 to 7.3

### Taxadjunct Feature

The Broadhead soils in this survey area are taxadjuncts because the linear extensibility and shrink-swell potential are higher than is defined as the range for the series. These differences, however, do not affect the use and management of the soils for rangeland or cropland.

## Cachecan Series

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium



## Soil Survey of Franklin County Area, Idaho

*Slope:* 0 to 2 percent

*Elevation:* 4,400 to 4,900 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Fluventic Xerochrepts

### Typical Pedon

Cachecan silt loam, in an area of Delish-Cachecan-Stinkcreek complex, 0 to 2 percent slopes; about 2.75 miles west of Fairview, in Franklin County, Idaho; about 1,200 feet south and 1,800 feet east of the northwest corner of sec. 29, T. 16 S., R. 39 E.

A—0 to 5 inches; grayish brown (10YR 5/2) silt loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure parting to moderate very fine and fine granular; slightly hard, very friable, slightly sticky, slightly plastic; few very fine and fine and common medium roots; few very fine and common fine irregular and tubular pores; disseminated carbonates (5 percent calcium carbonate equivalent); slightly effervescent; moderately alkaline (pH 8.1); abrupt wavy boundary.

Bw1—5 to 12 inches; light brownish gray (10YR 6/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak fine and medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; common very fine and fine and few medium roots; few very fine and common fine irregular and tubular pores; few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation that are relict redoximorphic features; disseminated carbonates (5 percent calcium carbonate equivalent); 2 percent gravel; strongly effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

Bw2—12 to 20 inches; pale brown (10YR 6/3) silt loam, brown (10YR 5/3) moist; weak thick platy structure parting to moderate medium and coarse subangular blocky; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine and medium roots; common very fine and few fine tubular pores; few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation that are relict redoximorphic features; disseminated carbonates (12 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.5); abrupt wavy boundary.

Bg—20 to 37 inches; gray (10YR 6/1) silty clay loam, dark gray (10YR 4/1) moist; moderate coarse prismatic structure; very hard, friable, moderately sticky, moderately plastic; common very fine and few fine and medium roots; common very fine and few fine tubular pores; common medium faint very dark gray (10YR 3/1) irregularly shaped iron depletions that are concentrated in the lower part of the horizon, below a depth of 30 inches; disseminated carbonates (10 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.

Cg—37 to 61 inches; light gray (10YR 7/1) silty clay loam, dark gray (10YR 4/1) moist; massive; very hard, firm, moderately sticky, moderately plastic; common very fine and few fine roots; few very fine tubular pores; common medium faint very dark gray (10YR 3/1) irregularly shaped iron depletions; disseminated carbonates (15 percent calcium carbonate equivalent); slightly effervescent; common crushed snail shell fragments; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Depth to the base of a cambic horizon—12 to 25 inches

## Soil Survey of Franklin County Area, Idaho

Irregular decrease in content of organic carbon  
Depth to iron depletions—20 to 36 inches

### *Water features*

Seasonal high water table: Month(s)—January, February, March, April, May, and June; depth—2.5 to 3.5 feet  
Flooding: Month(s)—February, March, April, and May; frequency—rare

### *A horizon*

Hue—10YR  
Value—5 or 6 dry, 3 or 4 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—12 to 18 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—1 to 15 percent  
Sodium adsorption ratio—0 to 13  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

### *Bw horizons*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam or silt loam  
Content of clay—5 to 20 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—1 to 15 percent  
Sodium adsorption ratio—5 to 13  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

### *Bg horizon*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—25 to 32 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 15 percent  
Sodium adsorption ratio—5 to 13  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 7.9 to 9.0

### *Cg horizon*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—32 to 40 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 20 percent  
Sodium adsorption ratio—5 to 13

Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 8.5 to 9.0

## Camelback Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Hills and mountains  
*Landform:* Hillslopes and mountain slopes  
*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 20 to 60 percent  
*Elevation:* 5,000 to 6,700 feet  
*Mean annual precipitation:* 15 to 20 inches  
*Mean annual air temperature:* 40 to 45 degrees F  
*Frost-free period:* 60 to 95 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Pachic Argixerolls

### Typical Pedon

Camelback very gravelly silt loam, in an area of Camelback-Lonigan complex, 20 to 50 percent slopes; about 3 miles east of Preston, in Franklin County, Idaho; about 950 feet south and 2,900 feet east of the northwest corner of sec. 16, T. 15 S., R. 40 E.

- A1—0 to 3 inches; dark grayish brown (10YR 4/2) very gravelly silt loam, very dark brown (10YR 2/2) moist; moderate fine and medium granular structure; slightly hard, friable, nonsticky, nonplastic; common very fine roots; common very fine and few fine irregular pores; 40 percent gravel; slightly alkaline (pH 7.6); clear smooth boundary.
- A2—3 to 14 inches; grayish brown (10YR 5/2) very gravelly silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium granular structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots; common very fine and few fine irregular pores; 40 percent gravel; slightly alkaline (pH 7.7); clear smooth boundary.
- Bt1—14 to 22 inches; grayish brown (10YR 5/2) very gravelly silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; hard, friable, slightly sticky, slightly plastic; common very fine roots; few very fine and fine tubular pores; few faint clay bridges; 40 percent gravel; slightly alkaline (pH 7.6); abrupt wavy boundary.
- Bt2—22 to 32 inches; brown (10YR 5/3) very gravelly silty clay loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine roots; few very fine and fine tubular pores; few faint clay films on faces of peds and lining pores; 40 percent gravel; slightly alkaline (pH 7.7); clear wavy boundary.
- Bt3—32 to 50 inches; yellowish brown (10YR 5/6) very gravelly silt loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; hard, friable, slightly sticky, slightly plastic; few very fine roots; few very fine and fine tubular pores; few faint clay films on faces of peds and lining pores; 40 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.
- BC—50 to 61 inches; light yellowish brown (10YR 6/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine

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roots; few very fine tubular and irregular pores; 35 percent gravel; slightly alkaline (pH 7.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 35 inches

Depth to an argillic horizon—10 to 35 inches

#### *A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 18 percent

Content of rock fragments—21 to 57 percent gravel

Reaction—pH of 7.4 to 7.8

#### *Bt horizons*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 6 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—20 to 31 percent

Content of rock fragments—21 to 57 percent gravel

Reaction—pH of 7.4 to 7.8

#### *BC horizon*

Hue—10YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—4 to 6 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—14 to 24 percent

Content of rock fragments—21 to 47 percent gravel

Reaction—pH of 7.4 to 7.8

## Cedarhill Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium

*Slope:* 12 to 50 percent

*Elevation:* 4,900 to 6,300 feet

*Mean annual precipitation:* 13 to 20 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Typic Calcixerolls

### Typical Pedon

Cedarhill very gravelly silt loam, 12 to 20 percent slopes; about 1 mile north and 3 miles east of Preston, in Franklin County, Idaho; about 900 feet south and 1,200 feet east of the northwest corner of sec. 17, T. 15 S., R. 40 E.

Ap—0 to 8 inches; brown (10YR 5/3) very gravelly silt loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine roots; many fine vesicular pores; disseminated carbonates; strongly effervescent; 45 percent gravel; slightly alkaline (pH 7.8); abrupt smooth boundary.

ABk—8 to 17 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots; many fine tubular pores; disseminated carbonates; strongly effervescent; 40 percent gravel; moderately alkaline (pH 7.9); gradual smooth boundary.

Bk1—17 to 28 inches; pale brown (10YR 6/3) very gravelly silt loam, brown (10YR 4/3) moist; massive; slightly hard, friable, slightly sticky, slightly plastic; few fine roots; few fine tubular pores; disseminated carbonates; violently effervescent; 40 percent gravel; moderately alkaline (pH 8.1); gradual smooth boundary.

Bk2—28 to 60 inches; very pale brown (10YR 7/3) very gravelly silt loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots; disseminated carbonates; violently effervescent; 40 percent gravel; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—9 to 17 inches

Depth to a calcic horizon—7 to 12 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—10 to 16 percent

Content of rock fragments—20 to 45 percent gravel, 0 to 11 percent cobbles

Calcium carbonate equivalent—10 to 15 percent

Reaction—pH of 7.4 to 7.8

#### *ABk horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—10 to 17 percent

Content of rock fragments—7 to 51 percent gravel, 0 to 11 percent cobbles

Calcium carbonate equivalent—15 to 35 percent

Reaction—pH of 7.4 to 8.4

#### *Bk horizons*

Hue—10YR

Value—6 to 8 dry, 3 to 8 moist

Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or loam  
Content of clay—10 to 17 percent  
Content of rock fragments—22 to 54 percent gravel, 0 to 25 percent cobbles  
Calcium carbonate equivalent—15 to 35 percent  
Reaction—pH of 7.9 to 8.4

## Chesbrook Series

*Depth class:* Very deep  
*Drainage class:* Poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Plains  
*Landform:* Flood plains  
*Parent material:* Silty alluvium  
*Slope:* 0 to 2 percent  
*Elevation:* 4,900 to 5,100 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 41 to 45 degrees F  
*Frost-free period:* 80 to 95 days

**Taxonomic classification:** Fine-silty, frigid Typic Calciaquolls

### Typical Pedon

Chesbrook silty clay loam; in adjacent Caribou County, Idaho; about 700 feet north and 1,200 feet east of the southwest corner of sec. 29, T. 6 S., R. 39 E.

Oi—0 to 2 inches; slightly decomposed plant material.

Akg1—2 to 13 inches; light brownish gray (10YR 6/2) silty clay loam, very dark gray (10YR 3/1) moist; weak coarse subangular blocky structure parting to moderate medium subangular blocky; slightly hard, very friable, moderately sticky, moderately plastic; common very fine and fine roots; common very fine tubular pores; violently effervescent (34 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual smooth boundary.

Akg2—13 to 20 inches; light brownish gray (10YR 6/2) silty clay loam, very dark gray (10YR 3/1) moist; weak medium subangular blocky structure parting to strong very fine granular; slightly hard, very friable, moderately sticky, moderately plastic; common very fine and fine roots; many very fine tubular pores; many light gray (10YR 7/2) iron depletions; violently effervescent (37 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual wavy boundary.

Bkg1—20 to 31 inches; light brownish gray (10YR 6/2) silty clay loam, very dark gray (10YR 3/1) moist; weak coarse subangular blocky structure parting to weak medium subangular blocky; slightly hard, very friable, moderately sticky, moderately plastic; common very fine and few fine roots; many very fine tubular pores; many light gray (10YR 7/2) iron depletions; strongly effervescent (47 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual wavy boundary.

Bkg2—31 to 36 inches; light brownish gray (10YR 6/2) silty clay loam, dark gray (10YR 4/1) moist; massive; soft, very friable, slightly sticky, slightly plastic; few very fine and fine roots; many very fine tubular pores; many light gray (10YR 7/2) iron depletions; strongly effervescent (75 percent calcium carbonate equivalent); strongly alkaline (pH 8.5); gradual wavy boundary.

Bkg3—36 to 48 inches; light gray (2.5Y 7/2) silty clay loam, light brownish gray (2.5Y 6/2) moist; massive; hard, very friable, moderately sticky, moderately plastic; few



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very fine and fine roots; many very fine and few fine tubular pores; few prominent yellow (2.5Y 7/6) masses of iron accumulation; strongly effervescent (47 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); clear wavy boundary.

Ckg1—48 to 56 inches; white (5Y 8/1) silty clay loam, light brownish gray (2.5Y 6/2) moist; massive; hard, very friable, moderately sticky, moderately plastic; few very fine and fine roots; common very fine and few fine tubular pores; few fine olive yellow (2.5Y 6/6) masses of iron accumulation; 2 percent snail shells; 25 percent  $\frac{5}{8}$ - by  $\frac{1}{4}$ -inch lime nodules; strongly effervescent (40 percent calcium carbonate equivalent); 3 percent gravel; strongly alkaline (pH 8.6); clear smooth boundary.

Ckg2—56 to 62 inches; pale yellow (5Y 8/3) silt loam, olive (5Y 5/3) moist; massive; hard, very friable, slightly sticky, slightly plastic; few very fine and fine roots; common very fine tubular pores; common fine olive yellow (2.5Y 6/6) and few fine light olive brown (2.5Y 5/4) masses of iron accumulation; 30 percent  $\frac{5}{8}$ - by  $\frac{1}{4}$ -inch lime nodules; slightly effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 30 inches

Depth to a calcic horizon—11 to 24 inches

Depth to redoximorphic features—6 to 18 inches

Aquic conditions

#### *Water features*

Seasonal high water table: Month(s)—February, March, April, May, June, and July; depth—0.5 foot to 1.5 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *Akg horizons*

Hue—10YR or 2.5Y

Value—4 to 6 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Content of organic matter—3 to 5 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—25 to 40 percent

Sodium adsorption ratio—0 to 3

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

#### *Bkg horizons*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 3 to 6 moist

Chroma—1 or 2 dry or moist

Content of organic matter—1 to 4 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam



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Content of clay—35 to 40 percent  
Content of rock fragments—0 to 3 percent gravel  
Calcium carbonate equivalent—40 to 75 percent  
Sodium adsorption ratio—0 to 3  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

### *Ckg horizons*

Hue—10YR, 2.5Y, 5Y, or N  
Value—6 to 8 dry, 4 to 6 moist  
Chroma—1 to 3 dry, 0 to 3 moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—20 to 32 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—25 to 40 percent  
Sodium adsorption ratio—0 to 3  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

## Cloudless Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Alluvial plains

*Landform:* Fan remnants

*Parent material:* Mixed alluvium

*Slope:* 4 to 20 percent

*Elevation:* 4,800 to 5,800 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 80 to 95 days

**Taxonomic classification:** Fine-loamy, mixed, frigid Typic Argixerolls

### Typical Pedon

Cloudless silt loam, in an area of Cloudless-Hades-Howcan complex, 12 to 20 percent slopes; about 3 miles west of Oxford, in Franklin County, Idaho; about 2,380 feet north and 2,500 feet east of the southwest corner of sec. 19, T. 13 S., R. 38 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common fine and few medium roots; common fine irregular and tubular pores; neutral (pH 7.0); gradual smooth boundary.

AB—6 to 9 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common fine and few medium roots; many fine irregular and common fine tubular pores; neutral (pH 7.1); clear smooth boundary.

Bt1—9 to 15 inches; grayish brown (10YR 5/2) silt loam, dark brown (10YR 3/3) moist; strong fine subangular blocky structure; hard, friable, slightly sticky, slightly plastic; common fine and few medium roots; common fine tubular pores; common distinct clay films on faces of peds and lining pores; 5 percent gravel; neutral (pH 7.0); gradual smooth boundary.

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- Bt2—15 to 21 inches; yellowish brown (10YR 5/4) silty clay loam, brown (10YR 4/3) moist; strong medium subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; common fine and medium roots; common fine tubular pores; many prominent clay films on faces of peds and lining pores; 10 percent gravel; neutral (pH 7.2); gradual smooth boundary.
- Bt3—21 to 29 inches; light yellowish brown (10YR 6/4) gravelly silty clay loam, brown (10YR 4/3) moist; strong fine subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; few fine and medium roots; few fine tubular pores; many prominent clay films on faces of peds and lining pores; 20 percent gravel; neutral (pH 7.2); gradual smooth boundary.
- Bt4—29 to 44 inches; light yellowish brown (10YR 6/4) gravelly silty clay loam, brown (10YR 4/3) moist; strong fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few fine and medium roots; few medium tubular pores; many distinct clay films on faces of peds and lining pores; 20 percent gravel; neutral (pH 7.2); clear smooth boundary.
- Bt5—44 to 60 inches; pale brown (10YR 6/3) gravelly silty clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; hard, very friable, moderately sticky, moderately plastic; few fine roots; few fine tubular pores; few faint clay films on faces of peds; 25 percent gravel; neutral (pH 7.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 18 inches

Depth to an argillic horizon—6 to 18 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 22 percent

Content of rock fragments—0 to 9 percent gravel

Reaction—pH of 6.1 to 7.3

#### *AB and Bt1 horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—16 to 27 percent

Content of rock fragments—0 to 15 percent gravel

Reaction—pH of 6.1 to 7.3

#### *Bt2 horizon*

Hue—10YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry, 2 or 3 moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 32 percent

Content of rock fragments—0 to 15 percent gravel

Reaction—pH of 6.1 to 7.3

*Bt3, Bt4, and Bt5 horizons*

Hue—10YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry, 2 or 3 moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 34 percent

Content of rock fragments—10 to 31 percent gravel

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 6.1 to 7.3

## Collinston Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Silty alluvium and lacustrine deposits

*Slope:* 2 to 60 percent

*Elevation:* 4,500 to 5,200 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Typic Calcixerolls

### Typical Pedon

Collinston silt loam, in an area of Wheelon-Collinston complex, 4 to 12 percent slopes; about 2 miles northwest of Weston, in Franklin County, Idaho; about 100 feet north and 1,800 feet west of the southeast corner of sec. 3, T. 16 S., R. 38 E.

Ap—0 to 8 inches; brown (10YR 5/3) silt loam, very dark grayish brown (10YR 3/2) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky, moderately plastic; many very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; disseminated carbonates; strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

Bk1—8 to 12 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine and fine and few medium and coarse roots; many very fine and few fine tubular pores; carbonates segregated in few fine irregular masses and threads; disseminated carbonates; strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

Bk2—12 to 20 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; common very fine and few fine and medium roots; common very fine and few fine tubular pores; carbonates segregated in many fine irregular masses and threads; disseminated carbonates; violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bk3—20 to 29 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; few very fine to medium roots; common very fine and few fine tubular pores; carbonates segregated in many fine irregular masses and threads; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.

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- Bk4—29 to 48 inches; light gray (10YR 7/2) silt loam, olive (5Y 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; few very fine to medium roots; common very fine and few fine tubular pores; common fine prominent yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation that are relict redoximorphic features; carbonates segregated in many fine irregular masses and threads; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- C—48 to 60 inches; light gray (10YR 7/2) silt loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, friable, slightly sticky, moderately plastic; common very fine tubular pores; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—9 to 20 inches

Depth to a calcic horizon—8 to 13 inches

#### *Ap horizon*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 22 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—10 to 20 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.4 to 9.0

#### *Bk1 horizon*

Hue—10YR, 2.5Y, or 5Y

Value—5 to 8 dry, 3 to 6 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—18 to 30 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—30 to 40 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

#### *Bk2, Bk3, and Bk4 horizons*

Hue—10YR, 2.5Y, or 5Y

Value—5 to 8 dry, 3 to 6 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—18 to 30 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—15 to 30 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

*C horizon*

Hue—10YR, 2.5Y, or 5Y

Value—7 or 8 dry, 5 to 7 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—18 to 30 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—10 to 20 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

## Copenhagen Series

*Depth class:* Shallow

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills and mountains

*Landform:* Hillslopes and mountain slopes

*Parent material:* Alluvium and residuum weathered from tuff

*Slope:* 4 to 55 percent

*Elevation:* 4,800 to 6,500 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Ashy-skeletal, frigid Lithic Haploxerolls

### Typical Pedon

Copenhagen very channery loam, in an area of Nyman-Lonigan-Copenhagen complex, 30 to 60 percent slopes; about 3 miles northeast of Preston, in Franklin County, Idaho; about 4,550 north and 1,600 feet west of the southeast corner of sec. 16, T. 15 S., R. 40 E.

A1—0 to 3 inches; very dark grayish brown (10YR 3/2) very channery loam, very dark brown (10YR 2/2) moist; moderate fine and medium granular structure; soft, very friable, nonsticky, nonplastic; common very fine and fine roots; common very fine and fine tubular pores; disseminated carbonates; slightly effervescent; 20 percent gravel and 25 percent channers; slightly alkaline (pH 7.6); clear smooth boundary.

A2—3 to 7 inches; very dark grayish brown (10YR 3/2) very channery loam, very dark brown (10YR 2/2) moist; moderate fine and medium granular structure; soft, very friable, nonsticky, nonplastic; common very fine and fine roots; common very fine and fine tubular pores; disseminated carbonates; slightly effervescent; 15 percent gravel and 20 percent channers; slightly alkaline (pH 7.6); clear wavy boundary.

Bw—7 to 13 inches; grayish brown (10YR 5/2) very channery loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; 15 percent gravel and 30 percent channers; slightly alkaline (pH 7.8); clear wavy boundary.

R—13 inches; tuff.

### Range in Characteristics

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Content of volcanic glass—70 to 90 percent

#### *A horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 24 percent

Content of rock fragments—15 to 57 percent gravel, 15 to 30 percent channers

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 6.6 to 7.8

Bulk density—0.80 to 1.00

Oxalate-extractable Al plus one-half Fe—0.14 to 0.17 percent

Phosphorus retention—15 to 25 percent

15-bar water retention, dry—15 to 25 percent

#### *Bw horizon*

Hue—10YR or 2.5Y

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 24 percent

Content of rock fragments—15 to 59 percent gravel, 15 to 30 percent channers

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 6.6 to 7.8

Bulk density—1.20 to 1.40

Oxalate-extractable Al plus one-half Fe—0.04 to 0.12 percent

Phosphorus retention—30 to 80 percent

15-bar water retention, dry—10 to 25 percent

## Delish Series

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,400 to 4,900 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Coarse-loamy, mixed (calcareous), mesic Oxyaquic  
Xerofluvents



**Typical Pedon**

Delish fine sandy loam, in an area of Delish-Cachean-Stinkcreek complex, 0 to 2 percent slopes; about 2 miles west of Fairview, in Franklin County, Idaho; about 100 feet south and 1,800 feet west of the northeast corner of sec. 29, T. 16 S., R. 39 E.

- A—0 to 3 inches; grayish brown (10YR 5/2) fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; few very fine roots; few very fine irregular pores; disseminated carbonates (10 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.0); abrupt wavy boundary.
- Bw—3 to 7 inches; pale brown (10YR 6/3) fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate fine and medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; few very fine roots; few very fine irregular pores; disseminated carbonates (2 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.0); abrupt wavy boundary.
- C1—7 to 10 inches; pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3) moist; moderate thick platy structure; soft, very friable, nonsticky, nonplastic; common very fine and few fine roots; common very fine irregular and common very fine to coarse tubular pores; disseminated carbonates (2 percent calcium carbonate equivalent); slightly effervescent; moderately alkaline (pH 8.0); abrupt wavy boundary.
- C2—10 to 13 inches; pale brown (10YR 6/3) loam, brown (10YR 5/3) moist; moderate thick platy structure; slightly hard, very friable, nonsticky, nonplastic; common very fine and few fine roots; few very fine and fine irregular and tubular pores; few fine faint yellowish brown (10YR 5/4) irregularly shaped masses of iron accumulation that are relict redoximorphic features; disseminated carbonates (2 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.8); abrupt wavy boundary.
- Bwb1—13 to 15 inches; pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; few very fine roots; common very fine irregular pores; few fine faint yellowish brown (10YR 5/4) irregularly shaped masses of iron accumulation that are relict redoximorphic features; disseminated carbonates (4 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.8); abrupt smooth boundary.
- Bwb2—15 to 32 inches; light brownish gray (10YR 6/2) loam, dark grayish brown (10YR 4/2) moist; moderate medium and coarse subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and few fine and medium tubular pores; few fine distinct yellowish brown (10YR 5/4) irregularly shaped masses of iron accumulation; disseminated carbonates (7 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.6); clear wavy boundary.
- C<sup>1</sup>—32 to 56 inches; pale brown (10YR 6/3) silt loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; common very fine tubular pores; common fine and medium prominent strong brown (7.5YR 4/6) irregularly shaped masses of iron accumulation; disseminated carbonates (7 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.3); clear wavy boundary.
- C<sup>2</sup>—56 to 61 inches; pale brown (10YR 6/3) silt loam, grayish brown (10YR 5/2) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; common very fine tubular pores; few fine prominent strong brown



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(7.5YR 4/6) irregularly shaped masses of iron accumulation; disseminated carbonates (10 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Irregular decrease in content of organic carbon  
Depth to redoximorphic features—10 to 22 inches

#### *Water features*

Seasonal high water table: Month(s)—January, February, March, April, May, and June; depth—1.5 to 2.5 feet  
Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *A horizon*

Hue—10YR  
Value—4 or 5 dry, 3 or 4 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—2 to 4 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam  
Content of clay—6 to 15 percent  
Calcium carbonate equivalent—10 to 15 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—2 to 8  
Reaction—pH of 7.9 to 8.4

#### *Bw and Bwb horizons*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 4 to 6 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam, silt loam, or loam  
Content of clay—8 to 15 percent  
Calcium carbonate equivalent—5 to 15 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

#### *C and C' horizons*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 4 to 6 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam, silt loam, or loam  
Content of clay—15 to 25 percent  
Calcium carbonate equivalent—5 to 15 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

## Dirtyhead Series

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Mixed alluvium and residuum

*Slope:* 4 to 30 percent

*Elevation:* 4,600 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 70 to 90 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Calcixerollic Xerochrepts

### Typical Pedon

Dirtyhead very gravelly loam, in an area of Huffman-Dirtyhead complex, 4 to 12 percent slopes; about 6 miles northwest of Weston, in Franklin County, Idaho; about 1,900 feet north and 400 feet west of the southeast corner of sec. 12, T. 16 S., R. 37 E.

A—0 to 6 inches; light brownish gray (10YR 6/2) very gravelly loam, dark grayish brown (10YR 4/2) moist; weak very fine granular structure; soft, friable, nonsticky, nonplastic; common very fine to medium roots; common very fine tubular pores; strongly effervescent (15 percent calcium carbonate equivalent); 40 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.

Bk1—6 to 16 inches; light brownish gray (10YR 6/2) very gravelly loam, grayish brown (10YR 5/2) moist; weak very fine subangular blocky structure; soft, friable, nonsticky, nonplastic; common very fine to medium roots; few very fine tubular pores; strongly effervescent (20 percent calcium carbonate equivalent); 45 percent gravel; moderately alkaline (pH 8.0); clear smooth boundary.

Bk2—16 to 26 inches; light gray (10YR 7/2) very gravelly sandy loam, pale brown (10YR 6/3) moist; massive; slightly hard, friable, nonsticky, nonplastic; few very fine and fine roots; common very fine tubular pores; violently effervescent (25 percent calcium carbonate equivalent); 55 percent gravel; moderately alkaline (pH 8.0); clear wavy boundary.

Bk3—26 to 38 inches; light gray (10YR 7/2) very gravelly sandy loam, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky, nonplastic; few very fine tubular pores; violently effervescent (20 percent calcium carbonate equivalent); 60 percent gravel; moderately alkaline (pH 8.2).

Cr—38 inches; calcareous sandstone.

### Range in Characteristics

*Depth to a restrictive feature:* 25 to 40 inches to paralithic bedrock

#### *Diagnostic feature*

Depth to a calcic horizon—5 to 12 inches

#### *A horizon*

Hue—10YR

Value—5 to 7 dry, 4 or 5 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 18 percent

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Content of rock fragments—26 to 51 percent gravel  
Calcium carbonate equivalent—10 to 25 percent  
Reaction—pH of 7.4 to 8.4

### *Bk horizons*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 5 or 6 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—loam or sandy loam  
Content of clay—10 to 18 percent  
Content of rock fragments—34 to 60 percent gravel  
Calcium carbonate equivalent—15 to 35 percent  
Reaction—pH of 7.4 to 8.4

## Downata Series

*Depth class:* Very deep

*Drainage class:* Very poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Plains and valleys

*Landform:* Flood plains and stream terraces

*Parent material:* Silty alluvium

*Slope:* 0 to 1 percent

*Elevation:* 4,700 to 4,900 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 90 days

**Taxonomic classification:** Fine-silty, mixed (calcareous), frigid Cumulic Endoaquolls

### Typical Pedon

Downata silt loam, in an area of Bear Lake-Downata-Thatcherflats complex, 0 to 1 percent slopes; about 0.5 mile east and 0.5 mile south of Oxford, in Franklin County, Idaho; about 450 feet south and 850 feet east of the northwest corner of sec. 34, T. 13 S., R. 38 E.

Oi—0 to 1 inch; slightly decomposed plant material.

Ag—1 to 7 inches; gray (10YR 5/1) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure parting to strong fine granular; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; many very fine tubular pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.0); abrupt smooth boundary.

Bg—7 to 12 inches; black (10YR 2/1) silt loam, black (10YR 2/1) moist; strong fine subangular blocky structure; very hard, friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; common very fine tubular pores; disseminated carbonates (1 percent calcium carbonate equivalent); slightly effervescent; moderately alkaline (pH 7.9); clear wavy boundary.

2Agb—12 to 22 inches; grayish brown (10YR 5/2) silty clay loam, very dark gray (10YR 3/1) moist; moderate medium subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine and fine and few medium roots; common very fine tubular pores; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

## Soil Survey of Franklin County Area, Idaho

- 2Bgb1—22 to 37 inches; dark gray (10YR 4/1) silty clay loam, very dark gray (10YR 3/1) moist; weak fine subangular blocky structure; very hard, firm, moderately sticky, moderately plastic; few very fine and fine roots; common very fine and fine tubular pores; common fine faint light olive brown (2.5Y 5/4) irregularly shaped masses of iron accumulation; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.1); clear smooth boundary.
- 2Bgb2—37 to 51 inches; very pale brown (10YR 8/2) silt loam, light gray (10YR 7/2) moist; massive; very hard, friable, slightly sticky, slightly plastic; common very fine tubular pores; few fine prominent light olive brown (2.5Y 5/4) irregularly shaped masses of iron accumulation; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.
- 2Bgb3—51 to 59 inches; very pale brown (10YR 8/2) silt loam, light gray (10YR 7/2) moist; massive; very hard, firm, moderately sticky, moderately plastic; few very fine tubular pores; common fine prominent light olive brown (2.5Y 5/4) irregularly shaped masses of iron accumulation; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- 2Cgb—59 to 63 inches; light gray (10YR 7/1) silt loam, pale brown (10YR 6/3) moist; massive; very hard, friable, nonsticky, nonplastic; common very fine tubular pores; common fine distinct dark yellowish brown (10YR 4/4) irregularly shaped masses of iron accumulation; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.3).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—24 to 40 inches

Aquic conditions

#### *Water features*

Seasonal high water table: Month(s)—January, February, March, April, May, and June; depth—0.0 feet

Ponding: Month(s)—January, February, March, April, May, and June; frequency—frequent; duration—brief; depth—0.0 to 1.0 foot

Flooding: Month(s)—January, February, March, April, May, and June; frequency—frequent; duration—brief

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *Ag horizon*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—3 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 24 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—5 to 35 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 4

Reaction—pH of 7.4 to 8.4

## Soil Survey of Franklin County Area, Idaho

### *Bg horizon*

Hue—10YR or 2.5Y  
Value—2 to 5 dry, 2 or 3 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—2 to 4 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—12 to 24 percent  
Content of rock fragments—0 to 3 percent gravel  
Calcium carbonate equivalent—5 to 35 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 7.4 to 8.4

### *2Agb and 2Bgb1 horizons*

Hue—10YR or 2.5Y  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—28 to 34 percent  
Content of rock fragments—0 to 3 percent gravel  
Calcium carbonate equivalent—15 to 40 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 7.4 to 8.4

### *2Bgb2, 2Bgb3, and 2Cgb horizons*

Hue—10YR or 2.5Y  
Value—6 to 8 dry, 4 to 7 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 27 percent  
Content of rock fragments—0 to 3 percent gravel  
Calcium carbonate equivalent—0 to 45 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 8.4

## **Dranburn Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium

*Slope:* 15 to 45 percent

*Elevation:* 5,400 to 7,000 feet

*Mean annual precipitation:* 17 to 22 inches

*Mean annual air temperature:* 37 to 41 degrees F

*Frost-free period:* 50 to 70 days

**Taxonomic classification:** Fine-loamy, mixed Argic Pachic Cryoborolls

### Typical Pedon

Dranburn silt loam, in an area of Dranburn-Robin complex, 15 to 45 percent slopes; about 3 miles northwest of Treasureton, in Franklin County, Idaho; about 1,000 feet north and 2,100 feet east of the southwest corner of sec. 36, T. 12 S., R. 39 E.

Oi—0 to 1 inch; slightly decomposed plant material.

A1—1 to 10 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak medium subangular blocky structure parting to weak fine granular; very hard, friable, slightly sticky, slightly plastic; many very fine to medium and common coarse roots; many very fine and fine tubular and irregular pores; neutral (pH 6.7); clear smooth boundary.

A2—10 to 17 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; hard, friable, slightly sticky, slightly plastic; many very fine to medium and common coarse roots; many very fine and fine tubular pores; 5 percent gravel and 2 percent cobbles; slightly acid (pH 6.5); clear smooth boundary.

AB—17 to 22 inches; brown (10YR 5/3) silty clay loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; hard, firm, slightly sticky, slightly plastic; common very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; 5 percent gravel; slightly acid (pH 6.4); clear wavy boundary.

Bt1—22 to 28 inches; yellowish brown (10YR 5/4) silty clay loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; very hard, firm, slightly sticky, slightly plastic; common very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; few faint clay films on faces of peds and lining pores; 10 percent gravel; slightly acid (pH 6.3); clear wavy boundary.

Bt2—28 to 43 inches; light yellowish brown (10YR 6/4) gravelly silty clay loam, yellowish brown (10YR 5/4) moist; moderate medium subangular blocky structure; very hard, very firm, moderately sticky, moderately plastic; few very fine to medium roots; common very fine tubular pores; common distinct clay films on faces of peds and lining pores; 20 percent gravel; slightly acid (pH 6.2); gradual wavy boundary.

Bt3—43 to 48 inches; brownish yellow (10YR 6/6) gravelly silty clay loam, yellowish brown (10YR 5/4) moist; moderate fine subangular blocky structure; very hard, very firm, moderately sticky, moderately plastic; few very fine and fine roots; common very fine tubular pores; few faint clay films on faces of peds and lining pores; 15 percent gravel; slightly acid (pH 6.2); clear wavy boundary.

BC—48 to 61 inches; brownish yellow (10YR 6/6) silty clay loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; very hard, very firm, moderately sticky, moderately plastic; common very fine tubular pores; 10 percent gravel; slightly acid (pH 6.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 30 inches

Depth to an argillic horizon—16 to 23 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

## Soil Survey of Franklin County Area, Idaho

### *A1 and A2 horizons*

Hue—10YR or 7.5YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—3 to 5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 24 percent  
Content of rock fragments—0 to 6 percent gravel, 0 to 5 percent cobbles  
Reaction—pH of 6.1 to 7.3

### *AB horizon*

Hue—10YR or 7.5YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—2 to 4 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—24 to 32 percent  
Content of rock fragments—0 to 9 percent gravel, 0 to 6 percent cobbles  
Reaction—pH of 6.1 to 7.3

### *Bt horizons*

Hue—10YR or 7.5YR  
Value—5 or 6 dry, 3 to 5 moist  
Chroma—3 to 6 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—28 to 35 percent  
Content of rock fragments—5 to 22 percent gravel  
Reaction—pH of 6.1 to 7.3

### *BC horizon*

Hue—10YR or 7.5YR  
Value—5 or 6 dry, 3 to 5 moist  
Chroma—3 to 6 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—28 to 35 percent  
Content of rock fragments—5 to 22 percent gravel  
Reaction—pH of 6.1 to 7.3

## **Enochville Series**

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Valleys

*Landform:* Low stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 1 percent

*Elevation:* 5,760 to 5,900 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 40 to 42 degrees F

*Frost-free period:* 50 to 65 days

**Taxonomic classification:** Fine-silty, mixed Cumulic Cryaquolls



### Typical Pedon

Enochville silt loam, 0 to 1 percent slopes; about 3 miles southeast of Cottonwood Peak, in adjacent Bannock County, Idaho; about 60 feet north and 100 feet east of the southwest corner of sec. 16, T. 12 S., R. 39 E.

- A1—0 to 2 inches; very dark grayish brown (10YR 3/2) silt loam, very dark brown (10YR 2/2) moist; strong medium granular structure; hard, friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; few very fine tubular and many very fine irregular pores; neutral (pH 6.9); abrupt wavy boundary.
- A2—2 to 12 inches; very dark grayish brown (10YR 3/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium and coarse subangular blocky structure parting to moderate fine and medium granular; hard, friable, slightly sticky, slightly plastic; many very fine and common fine and medium roots; many very fine tubular pores; neutral (pH 7.0); clear smooth boundary.
- Bg—12 to 20 inches; dark grayish brown (2.5Y 4/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; moderate coarse prismatic structure parting to moderate fine and medium subangular blocky; extremely hard, firm, moderately sticky, moderately plastic; common very fine and few fine and medium roots; many very fine tubular pores; slightly alkaline (pH 7.4); abrupt smooth boundary.
- Cg1—20 to 27 inches; grayish brown (2.5Y 5/2) silt loam, very dark grayish brown (2.5Y 3/2) moist; massive; extremely hard, friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; many very fine tubular pores; many medium prominent yellowish brown (10YR 5/8 dry and 10YR 5/6 moist) masses of iron accumulation; few fine round iron concretions; slightly alkaline (pH 7.7); abrupt wavy boundary.
- Cg2—27 to 43 inches; grayish brown (2.5Y 5/2) silt loam, very dark grayish brown (2.5Y 3/2) moist; massive; extremely hard, friable, slightly sticky, slightly plastic; many very fine, common fine, and few medium roots; many very fine tubular pores; many medium prominent masses of iron accumulation, yellowish brown (10YR 5/8) dry and dark yellowish brown (10YR 3/6) moist; moderately alkaline (pH 8.1); abrupt wavy boundary.
- 2Cg3—43 to 50 inches; pale olive (5Y 6/3) very gravelly sandy loam, olive (5Y 4/3) moist; massive; hard, friable, slightly sticky, slightly plastic; many very fine, common fine, and few medium roots; many very fine irregular and common fine tubular pores; common medium prominent masses of iron accumulation, brownish yellow (10YR 6/6) dry and dark yellowish brown (10YR 4/6) moist; 20 percent gravel, 10 percent cobbles, and 5 percent stones; moderately alkaline (pH 8.2); abrupt wavy boundary.
- 2Cg4—50 to 60 inches; pale yellow (2.5Y 7/4) extremely gravelly sandy loam, light olive brown (2.5Y 5/4) moist; massive; hard, friable, slightly sticky, slightly plastic; few very fine roots; many very fine irregular pores; common medium prominent masses of iron accumulation, yellowish brown (10YR 5/6) dry and dark yellowish brown (10YR 4/6) moist; 40 percent gravel, 25 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 43 inches

Aquic conditions

## Soil Survey of Franklin County Area, Idaho

### *Water features*

Seasonal high water table: Month(s)—April, May, and June; depth—1.0 to 2.0 feet

Flooding: Month(s)—February, March, April, May, and June; frequency—frequent; duration—brief

### *A horizons*

Hue—10YR, 2.5Y, or N

Value—3 to 5 dry, 1 or 2 moist

Chroma—0 to 2 dry or moist

Content of organic matter—4 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—15 to 25 percent

Content of rock fragments—0 to 6 percent gravel

Reaction—pH of 6.1 to 7.3

### *Bg horizon*

Hue—10YR, 2.5Y, 5Y, or N

Value—3 to 6 dry, 2 or 3 moist

Chroma—0 to 2 dry or moist

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Content of rock fragments—0 to 6 percent gravel

Reaction—pH of 6.1 to 7.3

### *Cg horizons*

Hue—10YR, 2.5Y, 5Y, or N

Value—3 to 6 dry, 2 or 3 moist

Chroma—0 to 2 dry or moist

Content of organic matter—1 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—20 to 35 percent

Content of rock fragments—0 to 6 percent gravel

Reaction—pH of 6.6 to 8.4

### *2Cg horizons*

Hue—10YR, 2.5Y, or 5Y

Value—6 or 7 dry, 5 or 6 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—sandy loam

Content of clay—13 to 18 percent

Content of rock fragments—8 to 40 percent gravel, 5 to 25 percent cobbles, 0 to 8 percent stones

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 8.4

## **Foxol Series**

*Depth class:* Shallow

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Colluvium and residuum derived from quartzite

*Slope:* 20 to 80 percent

## Soil Survey of Franklin County Area, Idaho

*Elevation:* 5,500 to 7,300 feet

*Mean annual precipitation:* 18 to 25 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 70 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Lithic Haploxerolls

### Typical Pedon

Foxol very stony loam, in an area of Foxol-Vitale complex, 20 to 55 percent slopes; about 2 miles east of Thatcher, in Franklin County, Idaho; about 900 feet north and 1,320 feet east of the southwest corner of sec. 4, T. 12 S., R. 41 E.

A1—0 to 3 inches; dark grayish brown (10YR 4/2) very stony loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure parting to weak fine granular; slightly hard, friable, slightly sticky, slightly plastic; many very fine and few fine and medium roots; 10 percent gravel, 15 percent cobbles, and 20 percent stones; slightly acid (pH 6.5); clear wavy boundary.

A2—3 to 9 inches; brown (10YR 4/3) very stony loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky, slightly plastic; many very fine and few fine and medium roots; 15 percent gravel, 20 percent cobbles, and 20 percent stones; slightly acid (pH 6.3); clear wavy boundary.

Bw—9 to 17 inches; brown (7.5YR 5/3) extremely stony loam, brown (7.5YR 4/2) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine and medium roots; 15 percent gravel, 20 percent cobbles, and 40 percent stones; slightly acid (pH 6.1); abrupt irregular boundary.

R—17 inches; quartzite

### Range in Characteristics

*Depth to a restrictive feature:* 14 to 20 inches to lithic bedrock

#### *Diagnostic feature*

Thickness of the mollic epipedon—7 to 12 inches

#### *A horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 24 percent

Content of rock fragments—1 to 17 percent gravel, 11 to 20 percent cobbles, 17 to 28 percent stones

Reaction—pH of 6.1 to 7.3

#### *Bw horizon*

Hue—7.5YR

Value—3 to 5 dry or moist

Chroma—3 or 4 dry, 2 to 4 moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 27 percent

Content of rock fragments—0 to 15 percent gravel, 17 to 23 percent cobbles, 28 to 45 percent stones

Reaction—pH of 5.6 to 6.5

## Hades Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Alluvial plains, hills, and mountains

*Landform:* Fan remnants, hillslopes, and mountain slopes

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 4 to 60 percent

*Elevation:* 4,800 to 6,700 feet

*Mean annual precipitation:* 14 to 22 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 60 to 100 days

**Taxonomic classification:** Fine-loamy, mixed, frigid Pachic Argixerolls

### Typical Pedon

Hades silt loam, in an area of Bothwell-Hades-Justesen complex, 6 to 25 percent slopes; about 5 miles south of Thatcher, in Franklin County, Idaho; about 105 feet north and 2,600 feet west of the southeast corner of sec. 19, T. 13 S., R. 40 E.

Ap—0 to 5 inches; grayish brown (10YR 5/2) silt loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; few fine roots; many fine irregular pores; 5 percent gravel; neutral (pH 7.0); gradual smooth boundary.

AB—5 to 11 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; hard, friable, slightly sticky, slightly plastic; few fine roots; common fine irregular pores; 10 percent gravel; neutral (pH 7.2); clear smooth boundary.

Bt1—11 to 23 inches; brown (10YR 5/3) gravelly silty clay loam, dark brown (10YR 3/3) moist; strong fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few fine roots; few fine tubular pores; many distinct clay films on faces of peds and lining pores; 15 percent gravel; neutral (pH 7.2); gradual smooth boundary.

Bt2—23 to 37 inches; yellowish brown (10YR 5/4) gravelly silty clay loam, dark yellowish brown (10YR 3/4) moist; strong fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few fine roots; few fine tubular pores; many distinct clay films on faces of peds and lining pores; 15 percent gravel; neutral (pH 7.3); clear smooth boundary.

Bt3—37 to 60 inches; light yellowish brown (10YR 6/4) gravelly silty clay loam, dark yellowish brown (10YR 3/4) moist; strong fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few fine roots; few fine tubular pores; many distinct clay films on faces of peds and lining pores; 15 percent gravel; slightly alkaline (pH 7.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 50 inches

Depth to an argillic horizon—11 to 38 inches

#### *Ap and AB horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

## Soil Survey of Franklin County Area, Idaho

Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 25 percent  
Content of rock fragments—0 to 15 percent gravel  
Reaction—pH of 6.6 to 7.3

### *Bt horizons*

Hue—10YR  
Value—4 to 6 dry, 3 or 4 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 35 percent  
Content of rock fragments—10 to 26 percent gravel, 0 to 10 percent cobbles  
Calcium carbonate equivalent—0 to 5 percent  
Reaction—pH of 6.6 to 7.8

## Haploxerolls

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Lake plains  
*Landform:* Lake terraces  
*Parent material:* Lacustrine deposits  
*Slope:* 20 to 60 percent  
*Elevation:* 4,500 to 4,700 feet  
*Mean annual precipitation:* 15 to 17 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 120 days

**Taxonomic classification:** Haploxerolls

### Typical Pedon

Haploxerolls silt loam, in an area of Haploxerolls-Xerorthents complex, 20 to 60 percent slopes; about 2 miles northwest of Preston, in Franklin County, Idaho; about 3,100 feet north and 700 feet east of the southwest corner of sec. 17, T. 15 S., R. 39 E.

- A—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak fine and medium granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; 10 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.
- Bw—6 to 17 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; 20 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk—17 to 39 inches; very pale brown (10YR 7/3) very gravelly loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine, common fine, and few medium and coarse roots; many very fine and few fine tubular pores; few fine irregularly shaped carbonate threads; slightly effervescent; 40 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.2); gradual wavy boundary.

## Soil Survey of Franklin County Area, Idaho

BC—39 to 60 inches; very pale brown (10YR 7/4) gravelly loamy sand, brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; common very fine and few fine roots; common very fine and few fine tubular pores; slightly effervescent; disseminated carbonates; 30 percent gravel; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—8 to 60 inches

Depth to secondary carbonates—15 to 24 inches

#### *A horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 5 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—5 to 25 percent

Content of rock fragments—0 to 77 percent gravel

Reaction—pH of 6.6 to 7.8

#### *Bw horizon*

Hue—10YR

Value—5 to 7 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam or sandy loam

Content of clay—5 to 25 percent

Content of rock fragments—2 to 77 percent gravel

Calcium carbonate equivalent—0 to 20 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 6.6 to 8.4

#### *Bk and BC horizons*

Hue—10YR

Value—5 to 7 dry, 4 to 6 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam or loamy sand

Content of clay—1 to 27 percent

Content of rock fragments—2 to 77 percent gravel, 0 to 28 percent cobbles

Calcium carbonate equivalent—0 to 30 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.4 to 9.0

## Harroun Taxadjunct

*Depth class:* Shallow

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Mixed alluvium

*Slope:* 4 to 12 percent



## Soil Survey of Franklin County Area, Idaho

*Elevation:* 5,300 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 85 to 100 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid, shallow Typic Durixerolls

### Typical Pedon

Harroun very gravelly loam, in an area of Huffman-Harroun-Lanoak complex, 2 to 12 percent slopes; about 6 miles southwest of Weston, in Franklin County, Idaho; about 1,500 feet north and 300 feet east of the southwest corner of sec. 24, T. 16 S., R. 37 E.

A—0 to 7 inches; light brownish gray (10YR 6/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; many very fine and fine roots; many very fine to medium tubular pores; disseminated carbonates (25 percent calcium carbonate equivalent); strongly effervescent; 25 percent gravel, 10 percent cobbles, and 1 percent stones; moderately alkaline (pH 8.4); clear smooth boundary.

Bk—7 to 15 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; many very fine and few fine roots; many very fine and fine tubular pores; disseminated carbonates (30 percent calcium carbonate equivalent); strongly effervescent; 30 percent gravel, 15 percent cobbles, and 1 percent stones; moderately alkaline (pH 8.4); abrupt smooth boundary.

Bkqm—15 to 28 inches; strongly cemented material; 65 percent indurated laminae in the upper part; abrupt wavy boundary.

C1—28 to 41 inches; very pale brown (10YR 8/3) extremely gravelly sandy loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky, nonplastic; many very fine irregular pores; disseminated carbonates (10 percent calcium carbonate equivalent); violently effervescent; 50 percent gravel and 20 percent cobbles; strongly alkaline (pH 8.6); clear wavy boundary.

C2—41 to 60 inches; very pale brown (10YR 7/3) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; soft, very friable, nonsticky, nonplastic; many very fine irregular pores; disseminated carbonates (15 percent calcium carbonate equivalent); violently effervescent; 30 percent gravel and 10 percent cobbles; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* 10 to 20 inches to a duripan

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 12 inches

Depth to a calcic horizon—7 to 12 inches

#### *A horizon*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—7 to 15 percent

Content of rock fragments—11 to 33 percent gravel, 3 to 10 percent cobbles, 0 to 3 percent stones

Calcium carbonate equivalent—20 to 30 percent



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Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

### *Bk horizon*

Hue—10YR

Value—6 or 7 dry, 3 to 6 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—7 to 15 percent

Content of rock fragments—10 to 45 percent gravel, 9 to 15 percent cobbles, 0 to 3 percent stones

Calcium carbonate equivalent—25 to 35 percent

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.4 to 8.4

### *Bkqm horizon*

Cemented material

### *C horizons*

Hue—10YR

Value—6 to 8 dry, 4 to 6 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—sandy loam

Content of clay—5 to 15 percent

Content of rock fragments—18 to 55 percent gravel, 9 to 20 percent cobbles

Calcium carbonate equivalent—5 to 15 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.9 to 9.0

### **Taxadjunct Feature**

These soils are taxadjuncts to the series because they have a mollic epipedon. This difference, however, does not significantly affect the use and management of the soils.

## **Hendricks Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Mixed alluvium

*Slope:* 6 to 10 percent

*Elevation:* 5,100 to 5,200 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 44 to 45 degrees F

*Frost-free period:* 120 to 125 days

**Taxonomic classification:** Fine-silty, mixed, mesic Pachic Argixerolls

### **Typical Pedon**

Hendricks silt loam, 6 to 10 percent slopes; in adjacent Cache County, Utah; about 50 feet south and 900 feet east of the northwest corner of sec. 1, T. 13 N., R. 1 E.

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- Ap—0 to 5 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium granular structure parting to moderate fine granular; slightly hard, friable, slightly sticky, moderately plastic; common fine roots; common fine pores; neutral (pH 6.8); abrupt smooth boundary.
- AB—5 to 15 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; common fine roots; common fine and medium and few coarse pores; slightly acid (pH 6.4); clear smooth boundary.
- Bt1—15 to 27 inches; brown (10YR 4/3) silty clay loam, dark brown (10YR 3/3) moist; weak medium prismatic structure parting to moderate medium subangular blocky; hard, firm, moderately sticky, moderately plastic; common fine roots; many fine and few medium pores; few distinct clay films on faces of peds and lining pores; slightly acid (pH 6.2); clear wavy boundary.
- Bt2—27 to 48 inches; yellowish brown (10YR 5/4) silty clay loam, brown (7.5YR 4/3) moist; weak medium prismatic structure parting to moderate medium subangular blocky; hard, firm, moderately sticky, moderately plastic; few fine roots; many fine pores; few prominent clay films on faces of peds and lining pores; slightly acid (pH 6.4); clear smooth boundary.
- Bt3—48 to 66 inches; brown (7.5YR 5/4) silty clay loam, brown (7.5YR 4/3) moist; weak fine and medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; few fine roots; common fine and few medium pores; common prominent clay films on faces of peds and lining pores; slightly acid (pH 6.3).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 40 inches

Depth to an argillic horizon—8 to 19 inches

#### *Ap horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 25 percent

Content of rock fragments—0 to 3 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.1 to 7.3

#### *AB horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 25 percent

Content of rock fragments—0 to 3 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.1 to 7.3

#### *Bt horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 35 percent  
Content of rock fragments—0 to 3 percent gravel  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 6.1 to 7.3

## Holmes Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Valleys  
*Landform:* Stream terraces  
*Parent material:* Mixed alluvium  
*Slope:* 0 to 2 percent  
*Elevation:* 4,900 to 5,100 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 41 to 43 degrees F  
*Frost-free period:* 85 to 95 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Typic Argixerolls

### Typical Pedon

Holmes gravelly silt loam, 0 to 2 percent slopes; about 6 miles south of Thatcher, in Franklin County, Idaho; about 1,900 feet north and 450 feet east of the southwest corner of sec. 36, T. 12 S., R. 40 E.

- A—0 to 4 inches; grayish brown (10YR 5/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; moderate very thick platy structure parting to moderate medium platy; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; few very fine tubular and irregular and few fine tubular pores; 15 percent gravel and 2 percent cobbles; slightly alkaline (pH 7.4); abrupt smooth boundary.
- ABt—4 to 11 inches; grayish brown (10YR 5/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak thick platy structure parting to moderate fine and medium subangular blocky; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine and medium roots; common very fine and fine tubular pores; few faint clay films on faces of peds and lining pores; 25 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.4); clear smooth boundary.
- Bt1—11 to 14 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine to medium roots; common very fine tubular pores; few distinct clay films on faces of peds and lining pores; 25 percent gravel, 10 percent cobbles, and 1 percent stones; slightly alkaline (pH 7.4); abrupt wavy boundary.
- Bt2—14 to 20 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine to medium roots; common very fine irregular pores; few distinct clay films on faces of peds and lining pores; 25 percent gravel (10 percent fine gravel), 15 percent cobbles, and 1 percent stones; slightly alkaline (pH 7.4); clear wavy boundary.

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2Cq1—20 to 43 inches; brown (7.5YR 4/3) very gravelly loamy coarse sand, dark brown (7.5YR 3/3) moist; single grain; loose, nonsticky, nonplastic; few very fine to medium roots; common very fine irregular pores; thin silica coatings on the bottom of 20 percent of rock fragments; 30 percent gravel (10 percent fine gravel), 15 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.8); diffuse irregular boundary.

2Cq2—43 to 61 inches; brown (7.5YR 5/4) extremely gravelly coarse sand, brown (7.5YR 4/3) moist; single grain; loose, nonsticky, nonplastic; few very fine to medium roots; common very fine and few fine irregular pores; thin silica coatings on the bottom of 40 percent of rock fragments; 35 percent gravel (10 percent fine gravel), 25 percent cobbles, and 20 percent stones; slightly alkaline (pH 7.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 16 inches

Depth to an argillic horizon—2 to 19 inches

#### *Water feature*

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *A horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—17 to 22 percent

Content of rock fragments—10 to 32 percent gravel, 1 to 6 percent cobbles

Reaction—pH of 6.6 to 7.8

#### *ABt and Bt horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 26 percent

Content of rock fragments—9 to 48 percent gravel, 5 to 20 percent cobbles, 0 to 3 percent stones

Reaction—pH of 6.6 to 7.8

#### *2Cq horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loamy coarse sand or coarse sand

Content of clay—1 to 6 percent

Content of rock fragments—6 to 47 percent gravel, 9 to 30 percent cobbles, 3 to 30 percent stones

Reaction—pH of 7.4 to 7.8

## Hondee Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Mixed alluvium

*Slope:* 1 to 12 percent

*Elevation:* 4,700 to 5,800 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 125 days

**Taxonomic classification:** Loamy-skeletal, mixed, mesic Calcic Haploxerolls

### Typical Pedon

Hondee gravelly loam, 1 to 4 percent slopes; about 0.5 mile south of Weston, in Franklin County, Idaho; about 1,240 feet south and 1,650 feet west of the northeast corner of sec. 23, T. 16 S., R. 38 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; few very fine and fine tubular pores; 30 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.

AB—6 to 16 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and few fine tubular pores; 20 percent gravel; slightly alkaline (pH 7.6); gradual wavy boundary.

Bk1—16 to 19 inches; grayish brown (10YR 5/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 1-to-2-millimeter-thick carbonate coatings on the bottom of pebbles; disseminated carbonates; slightly effervescent; 40 percent gravel; slightly alkaline (pH 7.8); abrupt wavy boundary.

Bk2—19 to 22 inches; light gray (10YR 7/2) very gravelly sandy loam, grayish brown (10YR 5/2) moist; massive; slightly hard, friable, slightly sticky, nonplastic; few very fine roots; common very fine tubular pores; 1-to-3-millimeter-thick carbonate coatings on the bottom of pebbles; disseminated carbonates; violently effervescent; 45 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.4); gradual wavy boundary.

Bk3—22 to 39 inches; very pale brown (10YR 8/2) extremely gravelly coarse sandy loam, brown (10YR 5/3) moist; massive; soft, friable, nonsticky, nonplastic; few very fine roots; common very fine tubular pores; 1-millimeter-thick carbonate coatings on the bottom of rock fragments; disseminated carbonates; violently effervescent; 65 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.4); gradual wavy boundary.

2Bk4—39 to 60 inches; multicolored very gravelly loamy coarse sand; single grain; loose, nonsticky, nonplastic; common very fine tubular pores; common medium prominent yellowish brown (10YR 5/8) masses of iron accumulation that are relict redoximorphic features; 1-millimeter-thick carbonate coatings on the bottom of

## Soil Survey of Franklin County Area, Idaho

rock fragments; disseminated carbonates; strongly effervescent; 30 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 19 inches

Depth to a calcic horizon—10 to 20 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—12 to 17 percent

Content of rock fragments—16 to 32 percent gravel, 0 to 3 percent cobbles

Reaction—pH of 7.4 to 8.4

#### *AB horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—8 to 18 percent

Content of rock fragments—13 to 29 percent gravel, 0 to 3 percent cobbles

Reaction—pH of 7.4 to 8.4

#### *Bk horizons*

Hue—10YR

Value—4 to 8 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam, sandy loam, or coarse sandy loam

Content of clay—5 to 18 percent

Content of rock fragments—24 to 65 percent gravel, 0 to 3 percent cobbles

Calcium carbonate equivalent—5 to 35 percent

Reaction—pH of 7.4 to 8.4

#### *2Bk horizon*

Hue—multicolored

Value—4 to 8 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loamy coarse sand

Content of clay—2 to 6 percent

Content of rock fragments—23 to 43 percent gravel, 3 to 6 percent cobbles

Calcium carbonate equivalent—10 to 30 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

## Hondoho Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium

*Slope:* 4 to 60 percent

*Elevation:* 4,600 to 6,700 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 40 to 44 degrees F

*Frost-free period:* 60 to 100 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Calcic Haploxerolls

### Typical Pedon

Hondoho stony silt loam, in an area of Sprollow-Hondoho complex, 30 to 60 percent slopes; about 2 miles east of Treasureton Reservoir, in Franklin County, Idaho; about 800 feet north and 1,900 feet west of the southeast corner of sec. 5, T. 14 S., R. 40 E.

- A1—0 to 3 inches; dark grayish brown (10YR 4/2) stony silt loam, very dark gray (10YR 3/1) moist; strong very fine and fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common medium roots; many very fine irregular pores; 15 percent gravel and 10 percent stones; slightly alkaline (pH 7.6); clear wavy boundary.
- A2—3 to 11 inches; dark grayish brown (10YR 4/2) gravelly silt loam, very dark gray (10YR 3/1) moist; moderate fine and medium subangular blocky structure parting to strong fine granular; slightly hard, very friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine and common fine and medium irregular pores; 25 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); clear wavy boundary.
- Bw—11 to 19 inches; pale brown (10YR 6/3) very gravelly silt loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; few very fine roots; many very fine and common medium and coarse irregular pores; disseminated carbonates; carbonate coatings on the bottom of rock fragments (10 percent calcium carbonate equivalent); strongly effervescent; 30 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.0); gradual wavy boundary.
- Bk1—19 to 28 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/4) moist; moderate fine and medium subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine and fine roots; many very fine and few fine and medium tubular pores; disseminated carbonates; common fine irregularly shaped carbonate masses and threads (35 percent calcium carbonate equivalent); violently effervescent; 45 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.0); gradual wavy boundary.
- Bk2—28 to 45 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/4) moist; massive; hard, very friable, moderately sticky, moderately plastic; few very fine roots; many very fine and few fine and medium tubular pores; disseminated carbonates; many fine and medium irregularly shaped carbonate masses and threads; carbonate coatings on the bottom of rock fragments (40 percent calcium carbonate equivalent); violently effervescent; 50 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.0); gradual wavy boundary.



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Bk3—45 to 60 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/6) moist; massive; hard, very friable, slightly sticky, slightly plastic; few very fine roots; many very fine and few fine and medium tubular pores; disseminated carbonates; many fine and medium irregularly shaped carbonate masses and threads; carbonate coatings on the bottom of rock fragments (40 percent calcium carbonate equivalent); violently effervescent; 50 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 15 inches

Depth to a calcic horizon—8 to 15 inches

#### *A1 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—2 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 25 percent

Content of rock fragments—4 to 25 percent gravel, 0 to 10 percent cobbles, 5 to 65 percent stones

Reaction—pH of 7.4 to 7.8

#### *A2 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—2 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 25 percent

Content of rock fragments—4 to 25 percent gravel, 0 to 10 percent cobbles, 5 to 65 percent stones

Reaction—pH of 7.4 to 7.8

#### *Bw horizon*

Hue—10YR

Value—4 to 6 dry or moist

Chroma—3 or 4 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—15 to 25 percent

Content of rock fragments—13 to 57 percent gravel, 0 to 10 percent cobbles

Calcium carbonate equivalent—5 to 30 percent

Reaction—pH of 7.4 to 8.4

#### *Bk horizons*

Hue—10YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—3 to 6 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—18 to 26 percent

Content of rock fragments—11 to 55 percent gravel, 3 to 25 percent cobbles

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Calcium carbonate equivalent—15 to 40 percent  
Reaction—pH of 7.4 to 8.4

### Howcan Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Alluvial plains  
*Landform:* Fan remnants  
*Parent material:* Mixed alluvium  
*Slope:* 12 to 20 percent  
*Elevation:* 4,800 to 5,800 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 41 to 45 degrees F  
*Frost-free period:* 80 to 90 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Typic Argixerolls

#### Typical Pedon

Howcan very gravelly loam, in an area of Cloudless-Hades-Howcan complex, 12 to 20 percent slopes; about 2 miles south of Oxford, in Franklin County, Idaho; about 200 feet north and 650 feet west of the southeast corner of sec. 5, T. 14 S., R. 38 E.

- A1—0 to 8 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark brown (10YR 2/2) moist; moderate medium granular structure; slightly hard, very friable, slightly sticky, nonplastic; many very fine and fine and few medium roots; many very fine and fine and common medium tubular pores; 30 percent gravel and 5 percent stones; neutral (pH 6.6); clear smooth boundary.
- A2—8 to 14 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, nonplastic; many very fine and fine and few medium roots; many very fine and fine and common medium tubular pores; 35 percent gravel; neutral (pH 6.6); clear wavy boundary.
- Bt1—14 to 25 inches; yellowish brown (10YR 5/4) very gravelly loam, dark yellowish brown (10YR 3/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and fine tubular pores; many prominent clay films on faces of peds and lining pores; 25 percent gravel and 10 percent cobbles; neutral (pH 6.8); gradual wavy boundary.
- Bt2—25 to 36 inches; light olive brown (2.5Y 5/4) very cobbly loam, olive brown (2.5Y 4/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and fine tubular pores; common prominent clay films on faces of peds and lining pores; 20 percent gravel, 20 percent cobbles, and 5 percent stones; neutral (pH 6.8); gradual wavy boundary.
- BC—36 to 60 inches; light yellowish brown (2.5Y 6/4) very stony loam, olive brown (2.5Y 4/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky, nonplastic; few very fine roots; few very fine tubular pores; 20 percent gravel, 15 percent cobbles, and 20 percent stones; neutral (pH 6.8).

#### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

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### *Diagnostic features*

Thickness of the mollic epipedon—10 to 18 inches

Depth to an argillic horizon—10 to 20 inches

### *A horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—8 to 15 percent

Content of rock fragments—23 to 38 percent gravel, 0 to 6 percent stones

Reaction—pH of 6.6 to 7.3

### *Bt horizons*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 26 percent

Content of rock fragments—19 to 40 percent gravel, 0 to 25 percent cobbles, 0 to 6 percent stones

Reaction—pH of 6.6 to 7.3

### *BC horizon*

Hue—10YR or 2.5Y

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 to 5 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 21 percent

Content of rock fragments—10 to 26 percent gravel, 14 to 17 percent cobbles, 6 to 23 percent stones

Reaction—pH of 6.6 to 7.3

## **Huffman Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills and lake plains

*Landform:* Hillslopes and lake terraces

*Parent material:* Silty alluvium

*Slope:* 0 to 30 percent

*Elevation:* 4,900 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Fine-silty, mixed, frigid Calcic Haploxerolls

### **Typical Pedon**

Huffman silt loam, 0 to 4 percent slopes; about 0.75 mile north of Thatcher, in Franklin County, Idaho; about 1,300 feet north and 1,200 feet west of the southeast corner of sec. 36, T. 11 S., R. 40 E.

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- Ap1—0 to 7 inches; brown (10YR 4/3) silt loam, dark brown (10YR 3/3) moist; moderate fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine irregular and common fine irregular and tubular pores; slightly alkaline (pH 7.8); abrupt smooth boundary.
- Ap2—7 to 12 inches; brown (10YR 4/3) silt loam, dark brown (10YR 3/3) moist; moderate medium and thick platy structure; hard, friable, slightly sticky, slightly plastic; many very fine roots; many very fine irregular pores; slightly alkaline (pH 7.8); abrupt smooth boundary.
- Bw1—12 to 17 inches; brown (10YR 4/3) silt loam, dark brown (7.5YR 3/2) moist; moderate very fine subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine irregular and few fine tubular pores; slightly alkaline (pH 7.8); gradual smooth boundary.
- Bw2—17 to 28 inches; brown (7.5YR 5/4) silt loam, brown (7.5YR 4/4) moist; moderate fine subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine roots; common very fine and fine irregular pores; moderately alkaline (pH 8.0); clear smooth boundary.
- Bk1—28 to 37 inches; pink (7.5YR 7/4) silty clay loam, brown (7.5YR 5/4) moist; moderate fine subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine roots; common very fine irregular pores; common fine carbonate masses and threads; disseminated carbonates (20 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.6); abrupt smooth boundary.
- Bk2—37 to 60 inches; pink (7.5YR 7/4) silty clay loam, brown (7.5YR 5/4) moist; layers that are light reddish brown (2.5YR 6/4) dry and reddish brown (2.5YR 5/4) moist; moderate thin and medium platy structure; hard, firm, moderately sticky, moderately plastic; few very fine roots; common very fine and fine irregular and tubular pores; common fine carbonate masses and threads; disseminated carbonates (25 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—9 to 20 inches

Depth to a calcic horizon—15 to 30 inches

#### *Ap horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 27 percent

Reaction—pH of 6.6 to 7.8

#### *Bw horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—18 to 27 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

*Bk horizons*

Hue—10YR, 7.5YR, 5YR, or 2.5YR

Value—6 to 8 dry, 5 or 6 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Calcium carbonate equivalent—15 to 30 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

## Hymas Series

*Depth class:* Shallow

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Alluvium and colluvium derived from limestone

*Slope:* 30 to 60 percent

*Elevation:* 5,200 to 6,300 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 65 to 85 days

**Taxonomic classification:** Loamy-skeletal, carbonatic, frigid Lithic Haploxerolls

### Typical Pedon

Hymas very gravelly silt loam, in an area of Sprollow-Hymas complex, 30 to 60 percent slopes; about 1.25 miles south-southeast of Mapleton, in Franklin County, Idaho; about 1,250 feet south and 600 feet east of the northwest corner of sec. 1, T. 16 S., R. 40 E.

A1—0 to 3 inches; grayish brown (10YR 5/2) very gravelly silt loam, dark brown (10YR 3/3) moist; moderate thick platy structure parting to moderate very fine and fine granular; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; common very fine tubular and irregular pores; disseminated carbonates (40 percent calcium carbonate equivalent); slightly effervescent; 35 percent gravel, 5 percent cobbles, and 1 percent stones; moderately alkaline (pH 8.0); clear smooth boundary.

A2—3 to 14 inches; brown (10YR 5/3) very gravelly silt loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; common very fine tubular and irregular pores; disseminated carbonates (45 percent calcium carbonate equivalent); strongly effervescent; 30 percent gravel, 10 percent cobbles, and 5 percent stones; moderately alkaline (pH 8.2); gradual wavy boundary.

Bw—14 to 17 inches; pale brown (10YR 6/3) extremely cobbly loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots; common very fine and fine tubular and few very fine irregular pores; disseminated carbonates (50 percent calcium carbonate equivalent); strongly effervescent; 10 percent gravel,

## Soil Survey of Franklin County Area, Idaho

35 percent cobbles, and 25 percent stones; moderately alkaline (pH 8.2); abrupt wavy boundary.  
R—17 inches; limestone.

### Range in Characteristics

*Depth to a restrictive feature:* 10 to 20 inches to lithic bedrock

#### *Diagnostic feature*

Thickness of the mollic epipedon—7 to 14 inches

#### *A1 horizon*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—10 to 15 percent

Content of rock fragments—5 to 40 percent gravel, 3 to 25 percent cobbles, 0 to 6 percent stones

Calcium carbonate equivalent—5 to 15 percent

Reaction—pH of 6.6 to 8.4

#### *A2 horizon*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam or loam

Content of clay—10 to 18 percent

Content of rock fragments—5 to 54 percent gravel, 3 to 28 percent cobbles, 0 to 6 percent stones

Calcium carbonate equivalent—10 to 45 percent

Reaction—pH of 7.4 to 8.4

#### *Bw horizon*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 3 to 5 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 18 percent

Content of rock fragments—0 to 44 percent gravel, 6 to 37 percent cobbles, 0 to 25 percent stones

Calcium carbonate equivalent—40 to 50 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 9.0

## Iphil Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

## Soil Survey of Franklin County Area, Idaho

*Parent material:* Silty alluvium

*Slope:* 8 to 30 percent

*Elevation:* 4,600 to 5,600 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Coarse-silty, mixed, frigid Typic Calcixerolls

### Typical Pedon

lphil silt loam, in an area of lphil-Lonigan complex, 8 to 20 percent slopes; about 7 miles east of Preston, in Franklin County, Idaho; about 2,200 feet south and 2,300 feet west of the northeast corner of sec. 24, T. 15 S., R. 40 E.

Ap—0 to 8 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium roots; many very fine irregular and tubular pores; disseminated carbonates (5 percent calcium carbonate equivalent); slightly effervescent; slightly alkaline (pH 7.8); abrupt smooth boundary.

AB—8 to 15 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; few very fine tubular pores; disseminated carbonates (5 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bk1—15 to 22 inches; pale brown (10YR 6/3) silt loam, dark grayish brown (10YR 4/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine and fine roots; common very fine tubular pores; disseminated carbonates (15 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.6); gradual smooth boundary.

Bk2—22 to 31 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; few very fine tubular pores; 5 percent, by volume, cicada krotovinas; disseminated carbonates (20 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.8); clear smooth boundary.

Bk3—31 to 40 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; few very fine tubular pores; 10 percent, by volume, cicada krotovinas; disseminated carbonates (20 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.8); clear smooth boundary.

Bk4—40 to 60 inches; very pale brown (10YR 7/3) silt loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few fine tubular pores; 20 percent, by volume, cicada krotovinas; disseminated carbonates (10 percent calcium carbonate equivalent); violently effervescent; strongly alkaline (pH 8.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Depth to a calcic horizon—7 to 16 inches



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### *Ap horizon*

Hue—10YR  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—7 to 18 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 15 percent  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 9.0

### *AB horizon*

Hue—10YR  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—10 to 18 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—10 to 15 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 9.0

### *Bk horizons*

Hue—10YR  
Value—6 to 8 dry, 4 to 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—loam or silt loam  
Content of clay—12 to 18 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—15 to 35 percent  
Sodium adsorption ratio—5 to 15  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 9.0

## **Ireland Series**

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium

*Slope:* 25 to 70 percent

*Elevation:* 5,500 to 6,700 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 65 to 85 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Calcic Haploxerolls

### Typical Pedon

Ireland very cobbly loam, in an area of Ireland-Polumar complex, 25 to 55 percent slopes; about 3 miles southeast of Thatcher, in Franklin County, Idaho; about 1,100 feet south and 2,550 feet west of the northeast corner of sec. 16, T. 12 S., R. 41 E.

- A1—0 to 2 inches; brown (10YR 5/3) very cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse subangular blocky structure parting to moderate fine granular; slightly hard, very friable, slightly sticky, slightly plastic; many very fine roots; many very fine tubular and common very fine irregular pores; 30 percent gravel and 20 percent cobbles; slightly alkaline (pH 7.8); clear smooth boundary.
- A2—2 to 7 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure parting to moderate very fine granular; slightly hard, very friable, slightly sticky, slightly plastic; many very fine roots; many very fine tubular pores; 25 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk1—7 to 14 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate masses (5 percent calcium carbonate equivalent); slightly effervescent; 35 percent gravel and 15 percent cobbles; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk2—14 to 17 inches; brown (10YR 5/3) extremely cobbly loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure parting to moderate fine subangular blocky; soft, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine tubular pores; disseminated carbonates (10 percent calcium carbonate equivalent); slightly effervescent; 10 percent gravel, 50 percent cobbles, and 15 percent stones; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk3—17 to 23 inches; pale brown (10YR 6/3) extremely cobbly sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky, nonplastic; common very fine roots; common very fine tubular and many very fine irregular pores; disseminated carbonates (10 percent calcium carbonate equivalent); carbonate coatings on the sides and tops of rock fragments; calcite crystals present in the horizon; violently effervescent; 15 percent gravel and 65 percent cobbles; moderately alkaline (pH 8.0); clear wavy boundary.
- R—23 inches; limestone.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

#### *Diagnostic features*

- Thickness of the mollic epipedon—10 to 20 inches
- Depth to a calcic horizon—7 to 17 inches

#### *A1 horizon*

- Hue—10YR
- Value—4 or 5 dry, 2 or 3 moist
- Chroma—2 or 3 dry or moist
- Content of organic matter—2 to 4 percent
- Texture of the fraction less than 2 millimeters in size—loam
- Content of clay—14 to 20 percent
- Content of rock fragments—12 to 36 percent gravel, 14 to 20 percent cobbles
- Reaction—pH of 7.4 to 8.4

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### *A2 horizon*

Hue—10YR  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—14 to 20 percent  
Content of rock fragments—8 to 43 percent gravel, 0 to 3 percent cobbles  
Reaction—pH of 7.4 to 8.4

### *Bk1 horizon*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 3 to 5 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or loam  
Content of clay—14 to 20 percent  
Content of rock fragments—6 to 57 percent gravel, 6 to 25 percent cobbles  
Calcium carbonate equivalent—1 to 10 percent  
Reaction—pH of 7.4 to 8.4

### *Bk2 and Bk3 horizons*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 3 to 5 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—sandy loam or loam  
Content of clay—10 to 22 percent  
Content of rock fragments—0 to 41 percent gravel, 20 to 65 percent cobbles, 0 to 31 percent stones  
Calcium carbonate equivalent—10 to 35 percent  
Sodium adsorption ratio—0 to 5  
Reaction—pH of 7.9 to 8.4

## **Justesen Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Mixed alluvium

*Slope:* 6 to 25 percent

*Elevation:* 5,000 to 6,000 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 60 to 90 days

**Taxonomic classification:** Fine-loamy, mixed, frigid Calcic Argixerolls

### **Typical Pedon**

Justesen silt loam, in an area of Bothwell-Hades-Justesen complex, 6 to 25 percent slopes; about 0.5 mile south of Thatcher, in Franklin County, Idaho; about 1,550 feet north and 1,300 feet west of the southeast corner of sec. 25, T. 13 S., R. 39 E.

## Soil Survey of Franklin County Area, Idaho

- Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate very fine, fine, and medium granular structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine to medium tubular pores; 1 percent gravel; neutral (pH 7.2); abrupt smooth boundary.
- Bt1—6 to 16 inches; brown (10YR 5/3) silty clay loam, dark brown (10YR 3/3) moist; moderate very fine prismatic structure parting to moderate very fine and fine subangular blocky; hard, firm, moderately sticky, moderately plastic; common very fine and fine roots; many very fine and fine tubular pores; common faint clay films on faces of peds and lining pores; 1 percent gravel; neutral (pH 6.8); clear smooth boundary.
- Bt2—16 to 26 inches; yellowish brown (10YR 5/4) silt loam, brown (10YR 4/3) moist; moderate fine prismatic structure parting to moderate fine and medium angular blocky; hard, firm, moderately sticky, moderately plastic; common very fine and fine roots; many fine and few very fine tubular pores; many faint clay films on faces of peds and lining pores; 5 percent gravel and 5 percent cobbles; neutral (pH 7.0); clear smooth boundary.
- Bt3—26 to 37 inches; brown (7.5YR 5/4) silty clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium prismatic structure; hard, firm, moderately sticky, moderately plastic; few very fine roots; common very fine and fine tubular pores; many distinct clay films on faces of peds and lining pores; 5 percent gravel; slightly alkaline (pH 7.4); clear smooth boundary.
- Btk—37 to 46 inches; light yellowish brown (10YR 6/4) silt loam, dark yellowish brown (10YR 4/4) moist; massive; hard, firm, moderately sticky, moderately plastic; few very fine roots; few very fine tubular pores; few faint clay films on faces of peds; 3 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.4); clear smooth boundary.
- Bk—46 to 60 inches; very pale brown (10YR 7/4) silt loam, brown (10YR 4/3) moist; massive; hard, friable, slightly sticky, slightly plastic; few very fine tubular pores; common fine distinct strong brown (7.5YR 5/6) irregularly shaped relict masses of iron accumulation; many fine carbonate filaments; disseminated carbonates; violently effervescent; 5 percent gravel; slightly alkaline (pH 7.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—14 to 19 inches

Depth to an argillic horizon—4 to 12 inches

Depth to a calcic horizon—24 to 43 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 20 percent

Content of rock fragments—0 to 3 percent gravel

Reaction—pH of 6.6 to 7.3

#### *Bt horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 3 percent

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Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—24 to 34 percent  
Content of rock fragments—0 to 10 percent gravel, 0 to 6 percent cobbles  
Reaction—pH of 6.6 to 7.8

### *Btk and Bk horizons*

Hue—10YR  
Value—6 to 8 dry, 4 or 5 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—20 to 27 percent  
Content of rock fragments—0 to 10 percent gravel, 0 to 10 percent cobbles  
Calcium carbonate equivalent—15 to 30 percent  
Reaction—pH of 7.4 to 8.4

## Kabear Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Hills  
*Landform:* Hillslopes  
*Parent material:* Mixed alluvium  
*Slope:* 4 to 50 percent  
*Elevation:* 5,000 to 5,600 feet  
*Mean annual precipitation:* 16 to 20 inches  
*Mean annual air temperature:* 41 to 45 degrees F  
*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Coarse-loamy, mixed, frigid Pachic Haploxerolls

### Typical Pedon

Kabear very fine sandy loam, in an area of Kabear-Staberg-Copenhagen complex, 12 to 30 percent slopes; about 8 miles northeast of Preston, in Franklin County, Idaho; about 1,400 feet south and 800 feet west of the northeast corner of sec. 26, T. 14 S., R. 40 E.

Ap—0 to 9 inches; dark grayish brown (10YR 4/2) very fine sandy loam, very dark brown (10YR 2/2) moist; weak fine granular structure; slightly hard, very friable, slightly sticky, nonplastic; many very fine and fine and few medium roots; common very fine tubular and irregular pores; neutral (pH 7.0); clear wavy boundary.

Bw1—9 to 17 inches; grayish brown (10YR 5/2) fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; many very fine, common fine, and few medium roots; common very fine tubular and irregular pores; neutral (pH 7.0); clear wavy boundary.

Bw2—17 to 25 inches; brown (10YR 5/3) sandy loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; common very fine and fine and few medium roots; common very fine tubular and irregular pores; 10 percent very weakly cemented nodules 5 to 10 millimeters in diameter; neutral (pH 7.0); gradual wavy boundary.

Bw3—25 to 45 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly

## Soil Survey of Franklin County Area, Idaho

sticky, slightly plastic; common very fine and fine and few medium roots; common very fine tubular and irregular pores; neutral (pH 7.0); gradual wavy boundary.  
C—45 to 60 inches; pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, slightly sticky, nonplastic; common very fine and fine and few medium roots; common very fine tubular and irregular pores; neutral (pH 7.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Thickness of the mollic epipedon—20 to 45 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—very fine sandy loam

Content of clay—4 to 14 percent

Content of rock fragments—0 to 6 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

#### *Bw horizons*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam, sandy loam, or loam

Content of clay—4 to 17 percent

Content of rock fragments—0 to 6 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

#### *C horizon*

Hue—10YR

Value—6 or 7 dry, 4 or 5 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam or loamy fine sand

Content of clay—3 to 10 percent

Content of rock fragments—0 to 6 percent gravel

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 6.6 to 7.8

## Kearns Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

## Soil Survey of Franklin County Area, Idaho

*Slope:* 0 to 2 percent

*Elevation:* 4,500 to 4,600 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Calcic Haploxerolls

### Typical Pedon

Kearns silt loam, 0 to 2 percent slopes; about 3 miles south of Twin Lakes Reservoir, in Franklin County, Idaho; about 450 feet south and 1,700 feet east of the northwest corner of sec. 1, T. 15 S., R. 38 E.

Ap—0 to 8 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; many very fine irregular and tubular pores; moderately alkaline (pH 8.0); clear smooth boundary.

A—8 to 16 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; common fine tubular pores; moderately alkaline (pH 8.0); clear smooth boundary.

Bk1—16 to 25 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; strong thin platy structure; hard, firm, slightly sticky, slightly plastic; few very fine and fine roots; common fine tubular pores; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4); gradual smooth boundary.

Bk2—25 to 38 inches; very pale brown (10YR 7/3) silt loam, yellowish brown (10YR 5/4) moist; moderate medium subangular blocky structure; hard, firm, slightly sticky, slightly plastic; few very fine and fine roots; few fine tubular pores; disseminated carbonates; common medium carbonate veins; violently effervescent; moderately alkaline (pH 8.4); gradual smooth boundary.

BC—38 to 50 inches; pale brown (10YR 6/3) very fine sandy loam, yellowish brown (10YR 5/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky, nonplastic; few very fine and fine roots; few fine tubular pores; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4); gradual smooth boundary.

C—50 to 60 inches; pale brown (10YR 6/3) silt loam, yellowish brown (10YR 5/4) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—7 to 18 inches

Depth to secondary carbonates—14 to 25 inches

#### Ap and A horizons

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—16 to 24 percent

Reaction—pH of 7.4 to 8.4



## Soil Survey of Franklin County Area, Idaho

### *Bk horizons*

Hue—10YR  
Value—5 to 7 dry, 3 to 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 26 percent  
Calcium carbonate equivalent—0 to 5 percent  
Reaction—pH of 7.4 to 8.4

### *BC and C horizons*

Hue—10YR  
Value—6 or 7 dry, 5 or 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or very fine sandy loam  
Content of clay—15 to 19 percent  
Calcium carbonate equivalent—5 to 25 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

## **Kearnsar Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 0 to 4 percent

*Elevation:* 4,400 to 4,800 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 120 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Pachic Calcixerolls

### **Typical Pedon**

Kearnsar silt loam, in an area of Kearnsar-Battle Creek complex, 0 to 4 percent slopes; about 1.5 miles north of Franklin, in Franklin County, Idaho; about 1,200 feet south and 10 feet east of the northwest corner of sec. 16, T. 16 S., R. 40 E.

Ap—0 to 9 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium granular structure; soft, friable, slightly sticky, slightly plastic; few very fine and fine roots; common very fine and fine tubular pores; slightly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

A—9 to 23 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; soft, friable, slightly sticky, slightly plastic; few very fine roots; common very fine and fine tubular pores; slightly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

## Soil Survey of Franklin County Area, Idaho

- Bk1—23 to 27 inches; light brownish gray (10YR 6/2) silty clay loam, dark grayish brown (10YR 4/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; few very fine roots; common very fine and fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate masses; strongly effervescent; moderately alkaline (pH 8.2); clear wavy boundary.
- Bk2—27 to 45 inches; very pale brown (10YR 8/3) silt loam, very pale brown (10YR 7/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots; few very fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate masses; violently effervescent; strongly alkaline (pH 8.6); clear wavy boundary.
- Bk3—45 to 60 inches; light gray (2.5Y 7/2) silt loam, light brownish gray (2.5Y 6/2) moist; weak very fine subangular blocky structure; hard, friable, slightly sticky, slightly plastic; many prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 27 inches

Depth to a calcic horizon—14 to 25 inches

Depth to redoximorphic features—40 to 60 inches

#### *Water feature*

Seasonal high water table: Month(s)—March, April, May, and June; depth—3.5 to 6.0 feet

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 25 percent

Calcium carbonate equivalent—1 to 10 percent

Reaction—pH of 7.9 to 8.4

#### *A horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Calcium carbonate equivalent—5 to 15 percent

Reaction—pH of 7.9 to 8.4

#### *Bk horizons*

Hue—10YR or 2.5Y

Value—5 to 8 dry, 4 to 7 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—24 to 35 percent

Calcium carbonate equivalent—10 to 35 percent

## Soil Survey of Franklin County Area, Idaho

Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

### Kidman Series

*Depth class:* Very deep  
*Drainage class:* Well drained or moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Lake plains and valleys  
*Landform:* Lake terraces and stream terraces  
*Parent material:* Lacustrine deposits  
*Slope:* 0 to 40 percent  
*Elevation:* 4,400 to 5,100 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 110 to 135 days

**Taxonomic classification:** Coarse-loamy, mixed, mesic Calcic Haploxerolls

#### Typical Pedon

Kidman fine sandy loam, 0 to 2 percent slopes; about 1 mile south and 2 miles west of Preston, in Franklin County, Idaho; about 2,300 feet north and 2,300 feet west of the southeast corner of sec. 31, T. 15 S., R. 39 E.

- Ap—0 to 12 inches; brown (10YR 5/3) fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak medium granular structure; soft, very friable, slightly sticky, nonplastic; many very fine and fine and few medium roots; many fine irregular pores; slightly alkaline (pH 7.8); clear smooth boundary.
- Bw—12 to 25 inches; pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; common very fine and fine and few medium roots; many fine irregular pores; moderately alkaline (pH 8.4); clear smooth boundary.
- Bk—25 to 44 inches; very pale brown (10YR 7/3) very fine sandy loam, brown (10YR 5/3) moist; weak medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; few very fine to medium roots; few fine irregular and tubular pores; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.4); clear smooth boundary.
- Bck—44 to 60 inches; very pale brown (10YR 7/3) very fine sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky, nonplastic; few very fine roots; few fine irregular and tubular pores; common medium faint pale brown (10YR 6/3) irregularly shaped masses of iron accumulation; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.4).

#### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—10 to 18 inches  
Depth to a calcic horizon—20 to 40 inches

#### Water feature

Seasonal high water table (where the soil is moderately well drained):  
Month(s)—January through December; depth—3.5 to 6.0 feet

## Soil Survey of Franklin County Area, Idaho

### *Ap horizon*

Hue—10YR  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—2 to 4 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam  
Content of clay—7 to 15 percent  
Content of rock fragments—0 to 6 percent gravel  
Reaction—pH of 7.4 to 7.8

### *Bw horizon*

Hue—10YR or 7.5YR  
Value—4 to 6 dry, 3 or 4 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam, very fine sandy loam, or loam  
Content of clay—6 to 18 percent  
Content of rock fragments—0 to 6 percent gravel  
Sodium adsorption ratio—0 to 3  
Reaction—pH of 7.4 to 8.4

### *Bk horizon*

Hue—10YR, 7.5YR, or 2.5Y  
Value—6 to 8 dry, 4 to 6 moist  
Chroma—2 to 4 dry, 3 or 4 moist  
Content of organic matter—0.0 to 1 percent  
Texture of the fraction less than 2 millimeters in size—loam, fine sandy loam, or very fine sandy loam  
Content of clay—5 to 15 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—0 to 3  
Reaction—pH of 7.9 to 8.4

### *B<sub>CK</sub> horizon*

Hue—10YR, 7.5YR, or 2.5Y  
Value—6 to 8 dry, 4 to 6 moist  
Chroma—2 to 4 dry, 3 or 4 moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—fine sandy loam or very fine sandy loam  
Content of clay—5 to 15 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—0 to 8  
Reaction—pH of 7.9 to 9.0

## **Lago Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (K<sub>sat</sub>):* Moderately high

*Landscape:* Valleys

## Soil Survey of Franklin County Area, Idaho

*Landform:* Stream terraces

*Parent material:* Silty alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,600 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Fine-silty, mixed, frigid Aquic Calcixerolls

### Typical Pedon

Lago silt loam, in an area of Merkley-Lago-Bear Lake complex, 0 to 2 percent slopes; about 0.5 mile northwest of Thatcher, in Franklin County, Idaho; about 260 feet south and 1,375 feet east of the northwest corner of sec. 1, T. 12 S., R. 40 E.

A—0 to 9 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure parting to moderate very fine subangular blocky; slightly hard, friable, moderately sticky, moderately plastic; many very fine and few fine roots; common very fine tubular and irregular pores; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.8); gradual smooth boundary.

Bk—9 to 16 inches; grayish brown (10YR 5/2) silt loam, dark grayish brown (10YR 4/2) moist; strong very fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; many very fine roots; common fine tubular pores; common fine irregularly shaped soft carbonate masses and filaments; strongly effervescent; strongly alkaline (pH 8.8); clear smooth boundary.

Bkg1—16 to 27 inches; gray (10YR 5/1) silt loam, very dark gray (10YR 3/1) moist; weak medium prismatic structure parting to weak very fine subangular blocky; hard, firm, moderately sticky, moderately plastic; many very fine roots; many very fine tubular pores; common fine distinct dark yellowish brown (10YR 4/4 moist) and common fine prominent yellowish brown (10YR 5/6 moist) masses of iron accumulation; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.8); gradual smooth boundary.

Bkg2—27 to 35 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; moderate very fine subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine roots; many very fine tubular pores; common fine distinct dark yellowish brown (10YR 4/4 moist) and common fine prominent yellowish brown (10YR 5/6 moist) masses of iron accumulation; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.8); clear smooth boundary.

Bkg3—35 to 45 inches; light gray (10YR 7/2) silt loam, light brownish gray (10YR 6/2) moist; massive; very hard, firm, moderately sticky, moderately plastic; few very fine roots; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.6); clear smooth boundary.

Cg—45 to 60 inches; light gray (10YR 7/2) sandy loam, light brownish gray (10YR 6/2) moist; massive; very hard, firm, slightly sticky, nonplastic; few very fine roots; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—8 to 19 inches

Depth to a calcic horizon—8 to 19 inches

Depth to redoximorphic features—15 to 29 inches

## Soil Survey of Franklin County Area, Idaho

### *Water features*

Seasonal high water table: Month(s)—February, March, April, May, June, July, and August; depth—1.5 to 3.0 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

### *A horizon*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—3 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 26 percent

Calcium carbonate equivalent—10 to 30 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

### *Bk horizon*

Hue—10YR or 2.5Y

Value—5 to 7 dry, 3 to 6 moist

Chroma—1 to 4 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 26 percent

Calcium carbonate equivalent—15 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

### *Bkg horizons*

Hue—10YR or 2.5Y

Value—5 to 7 dry, 3 to 6 moist

Chroma—1 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—22 to 35 percent

Calcium carbonate equivalent—15 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

### *Cg horizon*

Hue—10YR or 2.5Y

Value—6 or 7 dry or moist

Chroma—1 or 2 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silt loam, fine sandy loam, or sandy loam

Content of clay—10 to 26 percent

Calcium carbonate equivalent—5 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

## **Lando Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Valleys

## Soil Survey of Franklin County Area, Idaho

*Landform:* Stream terraces

*Parent material:* Silty alluvium

*Slope:* 0 to 4 percent

*Elevation:* 4,500 to 5,200 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Pachic Calcixerolls

### Typical Pedon

Lando silt loam, 0 to 4 percent slopes; about 4 miles west of Weston, in Franklin County, Idaho; about 50 feet north and 2,350 feet east of the southwest corner of sec. 5, T. 16 S., R. 38 E.

Ap—0 to 5 inches; dark gray (10YR 4/1) silt loam, very dark brown (10YR 2/2) moist; weak thick platy structure; slightly hard, friable, moderately sticky, slightly plastic; many very fine and fine and few medium roots; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; 1 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.

AB—5 to 14 inches; dark gray (10YR 4/1) silty clay loam, very dark brown (10YR 2/2) moist; moderate very fine and fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine and fine and few medium roots; common very fine tubular pores; disseminated carbonates; slightly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

Bk1—14 to 23 inches; gray (10YR 5/1) silty clay loam, very dark gray (10YR 3/1) moist; moderate very fine and fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine and few fine roots; common very fine tubular pores; few fine carbonate filaments and masses; disseminated carbonates; strongly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

Bk2—23 to 33 inches; gray (10YR 5/1) silty clay loam, very dark gray (10YR 3/1) moist; moderate very fine and fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine and few fine roots; common very fine and few fine and medium tubular pores; common fine carbonate filaments and masses; disseminated carbonates; strongly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bkg1—33 to 50 inches; gray (5Y 6/1) silty clay loam, very dark gray (5Y 3/1) moist; weak fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine and fine roots; common very fine and few fine tubular pores; many fine and medium carbonate filaments and masses; disseminated carbonates; violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bkg2—50 to 60 inches; gray (5Y 6/1) silty clay loam, dark gray (5Y 4/1) moist; weak fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine roots; common very fine and few fine tubular pores; few fine prominent light olive brown (2.5Y 5/4) masses of iron accumulation; common fine and medium carbonate filaments and masses; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—30 to 60 inches

Depth to a calcic horizon—9 to 16 inches



## Soil Survey of Franklin County Area, Idaho

### *Water feature*

Seasonal high water table: Month(s)—February, March, and April; depth—2.0 to 4.0 feet

### *Ap horizon*

Hue—10YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—2 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 26 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 10 percent  
Sodium adsorption ratio—0 to 8  
Reaction—pH of 7.4 to 7.8

### *AB horizon*

Hue—10YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—18 to 35 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—10 to 20 percent  
Sodium adsorption ratio—0 to 8  
Reaction—pH of 7.4 to 8.4

### *Bk horizons*

Hue—10YR  
Value—4 or 5 dry, 3 or 4 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 35 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 8.4

### *Bkg horizons*

Hue—2.5Y or 5Y  
Value—4 to 6 dry, 3 or 4 moist  
Chroma—1 to 3 dry or moist  
Content of organic matter—0.0 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 40 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 8.4

## Lanoak Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills and mountains

*Landform:* Hillslopes and mountain slopes

*Parent material:* Silty alluvium

*Slope:* 0 to 50 percent

*Elevation:* 4,900 to 6,500 feet

*Mean annual precipitation:* 14 to 20 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 60 to 100 days

**Taxonomic classification:** Fine-silty, mixed, frigid Pachic Haploxerolls

### Typical Pedon

Lanoak silt loam, in an area of Lanoak-Broadhead complex, 12 to 30 percent slopes; about 4 miles south of Mink Creek Church, in Franklin County, Idaho; about 2,500 feet south and 1,400 feet east of the northwest corner of sec. 23, T. 14 S., R. 40 E.

Ap—0 to 5 inches; dark grayish brown (10YR 4/2) silt loam, very dark gray (10YR 3/1) moist; weak fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine roots; common very fine and fine and few medium tubular pores; slightly alkaline (pH 7.4); clear wavy boundary.

A—5 to 21 inches; dark grayish brown (10YR 4/2) silt loam, very dark gray (10YR 3/1) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and fine and few medium tubular pores; slightly alkaline (pH 7.4); gradual wavy boundary.

Bt1—21 to 36 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and fine and few medium tubular pores; few faint clay films on faces of peds; slightly alkaline (pH 7.4); gradual wavy boundary.

Bt2—36 to 50 inches; light brownish gray (10YR 6/2) silt loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; common very fine and fine tubular pores; few faint clay films on faces of peds and lining pores; slightly alkaline (pH 7.6); clear wavy boundary.

Bk—50 to 60 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; common very fine tubular pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—20 to 38 inches

Depth to a cambic horizon—26 to 40 inches

Depth to carbonates—44 to 60 inches

#### Ap and A horizons

Hue—10YR

## Soil Survey of Franklin County Area, Idaho

Value—3 or 4 dry, 1 to 3 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—3 to 5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—10 to 20 percent  
Reaction—pH of 6.1 to 7.8

### *Bt horizons*

Hue—10YR  
Value—5 or 6 dry, 2 to 4 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—3 to 5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—10 to 20 percent  
Reaction—pH of 6.1 to 7.8

### *Bk horizon*

Hue—10YR  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 27 percent  
Calcium carbonate equivalent—0 to 15 percent  
Reaction—pH of 6.6 to 8.4

## Layton Taxadjunct

*Depth class:* Very deep  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Landscape:* Lake plains  
*Landform:* Lake terraces  
*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Elevation:* 4,400 to 4,900 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 45 to 47 degrees F  
*Frost-free period:* 120 to 130 days

**Taxonomic classification:** Sandy, mixed, mesic Typic Calcixerolls

### Typical Pedon

Layton loamy fine sand, 0 to 2 percent slopes; about 1 mile south and 1 mile east of Weston, in Franklin County, Idaho; about 50 feet north and 500 feet east of the southwest corner of sec. 19, T. 16 S., R. 39 E.

Ap—0 to 13 inches; brown (10YR 5/3) loamy fine sand, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; slightly hard, very friable, nonsticky, nonplastic; common very fine and few fine roots; many very fine interstitial pores; slightly alkaline (pH 7.7); clear smooth boundary.

A—13 to 19 inches; grayish brown (10YR 5/2) loamy fine sand, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, very friable, nonsticky, nonplastic; many very fine and few fine roots; common fine interstitial pores;

## Soil Survey of Franklin County Area, Idaho

disseminated lime; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bk1—19 to 23 inches; brown (10YR 5/3) loamy sand, brown (10YR 4/3) moist; weak fine granular structure; soft, very friable, nonsticky, nonplastic; few very fine and fine roots; common fine interstitial pores; few fine carbonate veins; disseminated carbonates; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bk2—23 to 34 inches; yellowish brown (10YR 5/4) loamy sand, brown (10YR 4/3) moist; single grain; loose, nonsticky, nonplastic; few very fine and fine roots; few fine tubular and interstitial pores; few medium faint light brownish gray (10YR 6/2) iron depletions; few fine carbonate veins in old root channels; disseminated carbonates; violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

C—34 to 64 inches; light yellowish brown (10YR 6/4) loamy sand, brown (10YR 4/3) moist; single grain; loose, nonsticky, nonplastic; neutral (pH 7.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—12 to 19 inches

Depth to a calcic horizon—19 to 40 inches

Depth to redoximorphic features—20 to 40 inches

#### *Water feature*

Seasonal high water table: Month(s)—April, May, and June; depth—3.5 to 5.0 feet

#### *Ap and A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loamy fine sand

Content of clay—3 to 12 percent

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 6.6 to 7.8

#### *Bk horizons*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loamy sand

Content of clay—3 to 10 percent

Calcium carbonate equivalent—5 to 20 percent

Reaction—pH of 7.4 to 8.4

#### *C horizon*

Hue—10YR

Value—6 or 7 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loamy sand

Content of clay—3 to 10 percent

Calcium carbonate equivalent—0 to 10 percent

Reaction—pH of 6.6 to 8.4

### Taxadjunct Feature

These soils are taxadjuncts to the series because they have a calcic horizon. This difference, however, does not significantly affect the use and management of the soils.

## Lewnot Series

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,400 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Coarse-loamy over sandy or sandy-skeletal, mixed, mesic Aquic Xerochrepts

### Typical Pedon

Lewnot fine sandy loam, in an area of Windernot-Lewnot-Stinkcreek complex, 0 to 2 percent slopes; about 1 mile south of Squaw Hot Springs, in Franklin County, Idaho; about 2,000 feet south and 2,450 feet east of the northwest corner of sec. 20, T. 15 S., R. 39 E.

Ap1—0 to 3 inches; pale brown (10YR 6/3) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure parting to moderate fine granular; soft, very friable, nonsticky, nonplastic; common very fine and fine roots; few very fine irregular and tubular pores; disseminated carbonates (5 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.1); abrupt smooth boundary.

Ap2—3 to 10 inches; pale brown (10YR 6/3) fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate thick platy structure parting to moderate fine and medium subangular blocky; slightly hard, very friable, nonsticky, nonplastic; common very fine and fine roots; few very fine irregular pores; disseminated carbonates (5 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.1); clear smooth boundary.

Bw1—10 to 14 inches; pale brown (10YR 6/3) loam, dark grayish brown (10YR 4/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; few very fine and fine tubular pores; disseminated carbonates (5 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.2); abrupt wavy boundary.

Bw2—14 to 20 inches; light brownish gray (10YR 6/2) silt loam, grayish brown (10YR 5/2) moist; moderate medium and coarse subangular blocky structure; hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and few fine tubular pores; common fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; disseminated carbonates (10 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.6); clear wavy boundary.

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- C1—20 to 38 inches; light gray (10YR 7/2) very fine sandy loam, grayish brown (10YR 5/2) moist; massive; hard, friable, slightly sticky, slightly plastic; few very fine roots; common very fine and few fine tubular pores; few fine faint light brownish gray (10YR 6/2) masses of iron depletion and few fine distinct yellowish brown (10YR 5/4) masses of iron accumulation; disseminated carbonates (10 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.8); abrupt wavy boundary.
- 2C2—38 to 61 inches; very pale brown (10YR 7/3) very gravelly loamy sand, light brownish gray (10YR 6/2) moist; single grain; loose; few very fine roots; common very fine and few fine irregular pores; disseminated carbonates (2 percent calcium carbonate equivalent); slightly effervescent; 45 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Depth to a cambic horizon—8 to 14 inches

Depth to redoximorphic features—14 to 30 inches

#### *Water features*

Seasonal high water table: Month(s)—January, February, March, April, May, and June; depth—2.0 to 3.5 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *Ap horizons*

Hue—10YR

Value—5 to 7 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam

Content of clay—5 to 15 percent

Calcium carbonate equivalent—5 to 10 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 8.4

#### *Bw and C1 horizons*

Hue—10YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—coarsely stratified fine sandy loam to silt loam, averaging very fine sandy loam or loam

Content of clay—10 to 25 percent

Calcium carbonate equivalent—5 to 10 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.9 to 9.0

#### *2C2 horizon*

Hue—10YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loamy sand

Content of clay—3 to 5 percent

Content of rock fragments—0 to 80 percent gravel, 0 to 5 percent cobbles

Calcium carbonate equivalent—1 to 10 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 7.9 to 9.0

## Lizdale Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Alluvial plains, hills, and mountains  
*Landform:* Fan remnants, hillslopes, and mountain slopes  
*Parent material:* Mixed alluvium  
*Slope:* 6 to 60 percent  
*Elevation:* 4,800 to 6,000 feet  
*Mean annual precipitation:* 14 to 18 inches  
*Mean annual air temperature:* 41 to 44 degrees F  
*Frost-free period:* 65 to 95 days

**Taxonomic classification:** Loamy-skeletal, carbonatic, frigid Typic Calcixerolls

### Typical Pedon

Lizdale very stony loam, 30 to 60 percent slopes; about 1 mile west of the town of Mink Creek, in Franklin County, Idaho; about 1,500 feet north and 2,200 feet west of the southeast corner of sec. 1, T. 14 S., R. 40 E.

Ak—0 to 6 inches; grayish brown (10YR 5/2) very stony loam, very dark grayish brown (10YR 3/2) moist; moderate very thick platy structure parting to strong very fine granular; slightly hard, very friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine and common fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate masses (10 percent calcium carbonate equivalent); slightly effervescent; 15 percent gravel, 5 percent cobbles, and 20 percent stones; moderately alkaline (pH 8.2); clear wavy boundary.

ABk—6 to 13 inches; grayish brown (10YR 5/2) very gravelly silt loam, dark brown (10YR 3/3) moist; weak medium and coarse subangular blocky structure parting to strong very fine and fine granular; slightly hard, very friable, slightly sticky, slightly plastic; common very fine to coarse roots; many very fine and common fine and medium tubular pores; disseminated carbonates; few fine irregularly shaped carbonate masses (35 percent calcium carbonate equivalent); slightly effervescent; 30 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.4); abrupt wavy boundary.

Bk1—13 to 27 inches; very pale brown (10YR 8/3) very gravelly loam, light yellowish brown (2.5Y 6/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and few fine tubular pores; disseminated carbonates; many medium irregularly shaped carbonate filaments and masses; carbonate coatings on all surfaces of rock fragments (50 percent calcium carbonate equivalent); violently effervescent; 35 percent gravel, 10 percent cobbles, and 5 percent stones; moderately alkaline (pH 8.4); gradual wavy boundary.

Bk2—27 to 52 inches; very pale brown (10YR 8/3) very gravelly sandy loam, light yellowish brown (2.5Y 6/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and fine roots; common very fine and few fine tubular pores; disseminated carbonates; many medium irregularly shaped carbonate filaments and masses; carbonate coatings on all surfaces of



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rock fragments (65 percent calcium carbonate equivalent); violently effervescent; 30 percent gravel, 15 percent cobbles, and 5 percent stones; moderately alkaline (pH 8.4); abrupt smooth boundary.

Bk3—52 to 64 inches; pale yellow (2.5Y 7/3) gravelly sandy loam, light olive brown (2.5Y 5/3) moist; massive; slightly hard, very friable, slightly sticky, nonplastic; common very fine roots; common very fine irregular and tubular pores; disseminated carbonates; many fine and medium irregularly shaped carbonate filaments and masses (45 percent calcium carbonate equivalent); violently effervescent; 20 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.2); clear smooth boundary.

Bk4—64 to 76 inches; pale yellow (2.5Y 7/3) extremely gravelly sandy loam, light yellowish brown (2.5Y 6/3) moist; massive; slightly hard, very friable, slightly sticky, nonplastic; few very fine roots; common very fine tubular pores; disseminated carbonates; many fine and medium irregularly shaped carbonate filaments and masses (40 percent calcium carbonate equivalent); violently effervescent; 55 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Depth to a calcic horizon—5 to 15 inches

#### *Ak horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—14 to 20 percent

Content of rock fragments—5 to 18 percent gravel, 3 to 17 percent cobbles, 11 to 20 percent stones

Calcium carbonate equivalent—10 to 20 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 8.4

#### *ABk horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 20 percent

Content of rock fragments—12 to 41 percent gravel, 6 to 17 percent cobbles

Calcium carbonate equivalent—25 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

#### *Bk1 and Bk2 horizons*

Hue—10YR or 2.5Y

Value—6 to 8 dry, 4 to 7 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loam or sandy loam

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Content of clay—5 to 17 percent  
Content of rock fragments—10 to 41 percent gravel, 8 to 17 percent cobbles, 0 to 6 percent stones  
Calcium carbonate equivalent—40 to 70 percent  
Sodium adsorption ratio—0 to 5  
Reaction—pH of 7.9 to 9.0

### Bk3 horizon

Hue—10YR or 2.5Y  
Value—6 to 8 dry, 4 to 7 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—sandy loam  
Content of clay—5 to 12 percent  
Content of rock fragments—10 to 37 percent gravel, 0 to 6 percent cobbles  
Calcium carbonate equivalent—40 to 60 percent  
Sodium adsorption ratio—0 to 5  
Reaction—pH of 7.9 to 9.0

### Bk4 horizon

Hue—10YR or 2.5Y  
Value—6 to 8 dry, 4 to 7 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—sandy loam  
Content of clay—5 to 15 percent  
Content of rock fragments—50 to 80 percent gravel, 0 to 36 percent cobbles  
Calcium carbonate equivalent—35 to 60 percent  
Sodium adsorption ratio—0 to 5  
Reaction—pH of 7.9 to 9.0

## Logan Series

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 3 percent

*Elevation:* 4,400 to 4,500 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 140 days

**Taxonomic classification:** Fine-silty, mesic Typic Calciaquolls

### Typical Pedon

Logan silty clay loam, 0 to 3 percent slopes; in adjacent Cache County, Utah; about 1,100 feet south and 500 feet east of the northwest corner of NE<sup>1</sup>/<sub>4</sub> sec. 16, T. 11 N., R. 1 E.

Oe—0 to 2 inches; moderately decomposed plant material; abrupt smooth boundary.  
A—2 to 15 inches; very dark gray (10YR 3/1) silty clay loam, black (10YR 2/1) moist; moderate medium granular structure; slightly hard, friable, moderately sticky,

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moderately plastic; many fine to coarse roots; common fine pores; strongly effervescent; moderately alkaline (pH 8.2); gradual smooth boundary.

Bkg—15 to 28 inches; light brownish gray (2.5Y 6/2) silty clay loam, dark gray (2.5Y 4/1) moist; massive; hard, firm, moderately sticky, moderately plastic; common fine and few medium roots; many fine and medium pores; violently effervescent; moderately alkaline (pH 8.4); clear smooth boundary.

Cg1—28 to 47 inches; light gray (5Y 7/1) silty clay loam, gray (5Y 6/1) moist; massive; extremely hard, very firm, very sticky, very plastic; few fine and medium roots; common fine pores; strongly effervescent; strongly alkaline (pH 8.8); gradual wavy boundary.

Cg2—47 to 62 inches; light gray (5Y 7/1) silty clay loam, gray (5Y 6/1) moist; massive; extremely hard, very firm, very sticky, very plastic; few fine and medium roots; common fine pores; common medium distinct zones of iron depletion, grayish brown (10YR 5/2) moist; strongly effervescent; strongly alkaline (pH 8.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 16 inches

Depth to a calcic horizon—10 to 16 inches

Depth to redoximorphic features—more than 20 inches

Aquic conditions

#### *Water features*

Seasonal high water table: Month(s)—May, June, July, August, and September;  
depth—0.0 to 1.0 foot

Flooding: Month(s)—January through December; frequency—rare

#### *Oe horizon*

Content of organic matter—60 to 95 percent

Texture—moderately decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A horizon*

Hue—10YR

Value—3 to 5 dry, 1 or 2 moist

Chroma—1 to 3 dry or moist

Content of organic matter—4 to 8 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 36 percent

Calcium carbonate equivalent—10 to 20 percent

Sodium adsorption ratio—0 to 3

Electrical conductivity (mmhos/cm)—0 to 4

Reaction—pH of 7.9 to 8.4

#### *Bkg horizon*

Hue—2.5Y, 5Y, or N

Value—5 to 7 dry, 4 to 6 moist

Chroma—0 to 2 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 40 percent

Calcium carbonate equivalent—20 to 45 percent

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Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 7.9 to 9.0

### *Cg horizons*

Hue—2.5Y, 5Y, or N  
Value—5 to 8 dry, 4 to 7 moist  
Chroma—0 to 2 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 40 percent  
Calcium carbonate equivalent—20 to 45 percent  
Sodium adsorption ratio—5 to 13  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 8.5 to 9.0

## Lonigan Series

*Depth class:* Moderately deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
*Landscape:* Hills and mountains  
*Landform:* Hillslopes and mountain slopes  
*Parent material:* Alluvium and residuum weathered from ashy tuff  
*Slope:* 6 to 80 percent  
*Elevation:* 4,600 to 6,500 feet  
*Mean annual precipitation:* 14 to 20 inches  
*Mean annual air temperature:* 41 to 45 degrees F  
*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Ashy-skeletal, frigid Vitrandic Haploxerolls

### Typical Pedon

Lonigan gravelly silt loam, in an area of Iphil-Lonigan complex, 8 to 20 percent slopes; about 5 miles northeast of Preston, in Franklin County, Idaho; about 1,200 feet south and 400 feet east of the northwest corner of sec. 14, T. 15 S., R. 40 E.

A—0 to 8 inches; grayish brown (10YR 5/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak very fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium roots; few fine tubular pores; 25 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.

Bw—8 to 11 inches; brown (10YR 5/3) very gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine roots; common fine tubular pores; 35 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.

Bk—11 to 24 inches; pale brown (10YR 6/3) very gravelly silt loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; few very fine and fine roots; many very fine and few fine tubular pores; carbonates segregated in masses and on the bottom of rock fragments; strongly effervescent; 45 percent gravel; moderately alkaline (pH 8.0); clear wavy boundary.

Cr—24 inches; tuff.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 15 inches

Depth to a calcic horizon—8 to 18 inches

Content of volcanic glass—50 to 80 percent

#### *A horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—5 to 18 percent

Content of rock fragments—13 to 37 percent gravel, 0 to 6 percent cobbles

Reaction—pH of 7.4 to 8.4

#### *Bw horizon*

Hue—10YR or 2.5Y

Value—3 to 7 dry, 2 to 6 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam or loam

Content of clay—10 to 18 percent

Content of rock fragments—20 to 51 percent gravel, 0 to 6 percent cobbles

Calcium carbonate equivalent—15 to 35 percent

Reaction—pH of 7.4 to 8.4

#### *Bk horizon*

Hue—10YR, 2.5Y, or N

Value—6 to 8 dry, 4 to 7 moist

Chroma—0 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—10 to 22 percent

Content of rock fragments—10 to 48 percent gravel, 0 to 23 percent cobbles

Calcium carbonate equivalent—15 to 35 percent

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.4 to 8.4

## Manila Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Alluvial plains, hills, and mountains

*Landform:* Fan remnants, hillslopes, and mountain slopes

*Parent material:* Mixed alluvium

*Slope:* 0 to 50 percent

*Elevation:* 4,800 to 6,600 feet

*Mean annual precipitation:* 15 to 19 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 60 to 95 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Typic Argixerolls

### Typical Pedon

Manila silt loam, in an area of Manila-Yeates Hollow complex, 6 to 20 percent slopes; about 5 miles north and 2.5 miles east of Preston, in Franklin County, Idaho; about 500 feet south and 600 feet west of the northeast corner of sec. 35, T. 14 S., R. 40 E.

- Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak thin and medium platy structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium roots; many very fine and few fine tubular pores; 2 percent gravel; neutral (pH 7.0); clear wavy boundary.
- BA—7 to 12 inches; brown (10YR 5/3) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine angular blocky structure; hard, friable, moderately sticky, moderately plastic; many very fine and fine and few medium roots; many very fine and common fine tubular pores; 2 percent gravel; neutral (pH 7.0); clear wavy boundary.
- Bt1—12 to 17 inches; brown (10YR 5/3) silty clay loam, dark brown (10YR 3/3) moist; moderate very fine and fine angular blocky structure; hard, firm, very sticky, very plastic; common very fine and fine roots; common very fine and fine tubular pores; common distinct clay films on faces of peds and lining pores; 2 percent gravel; neutral (pH 7.0); clear wavy boundary.
- Bt2—17 to 33 inches; yellowish brown (10YR 5/4) silty clay loam, dark yellowish brown (10YR 3/4) moist; strong medium and coarse prismatic structure; hard, firm, very sticky, very plastic; common very fine and few fine roots concentrated on faces of prisms; common very fine tubular pores; common fine distinct very dark grayish brown (10YR 3/2) organic stains on faces of prisms; many prominent clay films on faces of peds and lining pores; 5 percent gravel, 1 percent cobbles, and 1 percent stones; neutral (pH 7.2); gradual wavy boundary.
- Bt3—33 to 50 inches; yellowish brown (10YR 5/4) cobbly clay loam, dark yellowish brown (10YR 4/4) moist; strong medium and coarse prismatic structure; hard, firm, very sticky, very plastic; few very fine and fine roots concentrated on faces of prisms; common very fine tubular pores; common fine distinct very dark grayish brown (10YR 3/2) organic stains on faces of prisms; many prominent clay films on faces of peds and lining pores; 5 percent gravel, 8 percent cobbles, and 2 percent stones; neutral (pH 7.3); gradual wavy boundary.
- Bk—50 to 60 inches; very pale brown (10YR 8/3) gravelly loam, very pale brown (10YR 7/3) moist; massive; slightly hard, very friable, moderately sticky, moderately plastic; few very fine tubular pores; many fine and medium carbonate nodules and filaments; disseminated carbonates; violently effervescent; 10 percent gravel, 4 percent cobbles, and 1 percent stones; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 20 inches

Depth to an argillic horizon—5 to 18 inches

Depth to secondary carbonates—more than 45 inches

#### *Ap horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

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Content of clay—18 to 27 percent  
Content of rock fragments—0 to 6 percent gravel  
Reaction—pH of 6.6 to 7.3

### *BA, Bt1, and Bt2 horizons*

Hue—10YR or 7.5YR  
Value—4 or 5 dry, 2 to 4 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—2 to 4 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—32 to 40 percent  
Content of rock fragments—0 to 6 percent gravel, 0 to 5 percent cobbles, 0 to 5 percent stones  
Reaction—pH of 6.6 to 7.3

### *Bt3 horizon*

Hue—10YR or 7.5YR  
Value—4 or 5 dry, 2 to 4 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—clay loam  
Content of clay—27 to 40 percent  
Content of rock fragments—2 to 12 percent gravel, 0 to 10 percent cobbles, 0 to 5 percent stones  
Calcium carbonate equivalent—0 to 15 percent  
Reaction—pH of 6.6 to 7.8

### *Bk horizon*

Hue—10YR or 7.5YR  
Value—6 to 8 dry, 5 to 7 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—loam, silty clay loam, or clay loam  
Content of clay—18 to 35 percent  
Content of rock fragments—3 to 16 percent gravel, 3 to 6 percent cobbles, 0 to 5 percent stones  
Calcium carbonate equivalent—10 to 15 percent  
Reaction—pH of 7.4 to 8.4

## **Maplecreek Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,400 to 4,900 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 110 to 130 days

**Taxonomic classification:** Coarse-loamy, mixed, mesic Oxyaquic Calcixerolls



### Typical Pedon

Maplecreek fine sandy loam, 0 to 2 percent slopes; about 1.5 miles south of Preston, in Franklin County, Idaho; about 300 feet north and 200 feet west of the southeast corner of sec. 35, T. 15 S., R. 39 E.

- Ap—0 to 5 inches; brown (10YR 5/3) fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium roots; common fine irregular pores; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.4); clear smooth boundary.
- A—5 to 14 inches; grayish brown (10YR 5/2) fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; common fine tubular pores; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.4); clear smooth boundary.
- Bk1—14 to 23 inches; yellowish brown (10YR 5/4) fine sandy loam, dark yellowish brown (10YR 3/4) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and fine roots; common fine tubular pores; few fine carbonate masses; strongly effervescent; strongly alkaline (pH 8.6); gradual wavy boundary.
- Bk2—23 to 27 inches; very pale brown (10YR 7/3) fine sandy loam, light brown (7.5YR 6/4) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine and fine roots; few fine tubular and irregular pores; many medium and coarse carbonate masses; violently effervescent; strongly alkaline (pH 8.6); gradual smooth boundary.
- Bk3—27 to 35 inches; very pale brown (10YR 7/3) fine sandy loam, pinkish gray (7.5YR 6/2) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; few very fine tubular pores; many medium and coarse carbonate masses; violently effervescent; strongly alkaline (pH 8.6); gradual smooth boundary.
- C—35 to 60 inches; very pale brown (10YR 7/3) loamy fine sand, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky, nonplastic; common medium prominent brown (7.5YR 4/4) masses of iron accumulation; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—12 to 16 inches

Depth to a calcic horizon—12 to 16 inches

#### *Water features*

Seasonal high water table: Month(s)—January, February, March, April, May, June, and July; depth—2.0 to 3.5 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *Ap and A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam

Content of clay—10 to 18 percent

Calcium carbonate equivalent—1 to 10 percent

Electrical conductivity (mmhos/cm)—0 to 2

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Reaction—pH of 7.4 to 8.4

### *Bk horizons*

Hue—10YR or 7.5YR

Value—5 to 7 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam

Content of clay—10 to 18 percent

Calcium carbonate equivalent—15 to 25 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.9 to 9.0

### *C horizon*

Hue—10YR

Value—6 or 7 dry, 5 or 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loamy fine sand or fine sandy loam

Content of clay—5 to 10 percent

Calcium carbonate equivalent—5 to 20 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.9 to 9.0

## **Merkley Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium and loess

*Slope:* 0 to 2 percent

*Elevation:* 4,600 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 41 to 43 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Coarse-silty, mixed, frigid Typic Calcixerolls

### **Typical Pedon**

Merkley silt loam, in an area of Merkley-Lago-Bear Lake complex, 0 to 2 percent slopes; about 1.5 miles south of Thatcher, in Franklin County, Idaho; about 1,500 feet south and 1,850 feet west of the northeast corner of sec. 13, T. 12 S., R. 40 E.

A—0 to 5 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine roots; common very fine irregular and tubular pores; disseminated carbonates; strongly effervescent; 5 percent gravel; moderately alkaline (pH 7.9); clear wavy boundary.

Bk1—5 to 12 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine roots; common very fine and few

## Soil Survey of Franklin County Area, Idaho

- fine tubular pores; common fine irregularly shaped carbonate masses and filaments; strongly effervescent; 5 percent fine gravel; moderately alkaline (pH 8.2); clear wavy boundary.
- Bk2—12 to 19 inches; light brownish gray (10YR 6/2) loam, dark yellowish brown (10YR 4/4) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; many very fine and common fine roots; common very fine and fine tubular and irregular pores; common fine irregularly shaped carbonate masses and filaments; strongly effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- Bk3—19 to 31 inches; pale brown (10YR 6/3) loam, dark yellowish brown (10YR 4/4) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine roots; common very fine and few fine tubular and few very fine irregular pores; 20 percent cicada krotovinas filled with material from the A horizon; few fine irregularly shaped carbonate masses and filaments; violently effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.
- Bk4—31 to 50 inches; pale brown (10YR 6/3) fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; hard, very friable, nonsticky, nonplastic; common very fine and fine roots; common very fine tubular pores; 20 percent cicada krotovinas filled with material from the A horizon; few fine irregularly shaped carbonate masses and filaments; strongly effervescent; 5 percent gravel; strongly alkaline (pH 8.6); clear wavy boundary.
- 2C—50 to 61 inches; very pale brown (10YR 7/3) very gravelly loamy sand, dark yellowish brown (10YR 4/4) moist; single grain; loose, nonsticky, nonplastic; common very fine and few fine roots; many very fine and common fine irregular pores; disseminated carbonates; strongly effervescent; 50 percent gravel; strongly alkaline (pH 8.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Depth to a calcic horizon—5 to 14 inches

#### *Water feature*

Seasonal high water table: Month(s)—February, March, April, May, June, and July; depth—4.0 to 6.0 feet

#### *A horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 22 percent

Content of rock fragments—0 to 6 percent gravel

Calcium carbonate equivalent—0 to 10 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 8.4

#### *Bk1, Bk2, and Bk3 horizons*

Hue—10YR

Value—5 to 7 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

## Soil Survey of Franklin County Area, Idaho

Texture of the fraction less than 2 millimeters in size—silt loam or loam  
Content of clay—10 to 17 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—10 to 30 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 7.9 to 9.0

### *Bk4 horizon*

Hue—10YR  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—sandy loam or fine sandy loam  
Content of clay—3 to 12 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—0 to 10 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 7.9 to 9.0

### *2C horizon*

Hue—10YR  
Value—6 or 7 dry, 4 to 6 moist  
Chroma—1 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—loamy sand  
Content of clay—1 to 5 percent  
Content of rock fragments—0 to 65 percent gravel  
Calcium carbonate equivalent—0 to 10 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 7.9 to 9.0

## **Moonlight Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium and colluvium

*Slope:* 30 to 60 percent

*Elevation:* 5,400 to 6,300 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 37 to 40 degrees F

*Frost-free period:* 40 to 60 days

**Taxonomic classification:** Coarse-loamy, mixed Pachic Cryoborolls

### **Typical Pedon**

Moonlight silt loam, in an area of Moonlight-Camelback complex, 30 to 60 percent slopes; about 6 miles east of Pocatello, in adjacent Bannock County, Idaho; about 365 feet south and 650 feet west of the northeast corner of sec. 23, T. 6 S., R. 35 E.

## Soil Survey of Franklin County Area, Idaho

Oi—0 to 1 inch; slightly decomposed plant material.

Oe—1 to 2 inches; moderately decomposed plant material.

A1—2 to 5 inches; very dark grayish brown (10YR 3/2) silt loam, very dark brown (10YR 2/2) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and common medium and coarse roots; many very fine irregular pores; 10 percent gravel; neutral (pH 6.8); clear smooth boundary.

A2—5 to 11 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak medium and coarse subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine to medium and few coarse roots; many very fine irregular pores; 10 percent gravel; neutral (pH 6.8); clear smooth boundary.

A3—11 to 26 inches; brown (10YR 4/3) silt loam, very dark brown (10YR 2/2) moist; weak medium and coarse subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; many very fine irregular and common fine and medium tubular pores; 10 percent gravel; neutral (pH 6.7); gradual smooth boundary.

Bw1—26 to 41 inches; brown (10YR 5/3) silt loam, very dark grayish brown (10YR 3/2) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; common very fine and few fine tubular pores; 10 percent gravel; neutral (pH 6.7); clear smooth boundary.

Bw2—41 to 56 inches; light yellowish brown (10YR 6/4) silt loam, dark yellowish brown (10YR 4/4) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine to medium roots; common very fine and few fine tubular pores; 10 percent gravel; neutral (pH 6.7); clear smooth boundary.

Bw3—56 to 62 inches; light yellowish brown (10YR 6/4) silt loam, brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine to medium roots; many very fine tubular pores; 5 percent gravel; neutral (pH 6.9).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Thickness of the mollic epipedon—30 to 45 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *Oe horizon*

Content of organic matter—60 to 95 percent

Texture—moderately decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—4 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

## Soil Survey of Franklin County Area, Idaho

Content of clay—12 to 18 percent  
Content of rock fragments—5 to 15 percent gravel  
Reaction—pH of 5.6 to 7.3

### *Bw horizons*

Hue—10YR  
Value—4 to 6 dry, 2 to 4 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—12 to 18 percent  
Content of rock fragments—5 to 15 percent gravel  
Reaction—pH of 5.6 to 7.3

## Niter Series

*Depth class:* Very deep  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
*Landscape:* Hills  
*Landform:* Hillslopes and lake terraces  
*Parent material:* Lacustrine deposits  
*Slope:* 1 to 35 percent  
*Elevation:* 5,000 to 5,400 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 42 to 44 degrees F  
*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Typic Calcixererts

### Typical Pedon

Niter silty clay loam; about 1 mile northeast of Thatcher in adjacent Caribou County, Idaho; about 650 feet north and 1,025 feet west of the southeast corner of sec. 31, T. 11 S., R. 41 E.

Ap1—0 to 4 inches; grayish brown (2.5Y 5/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; weak thick and very thick platy structure parting to strong very fine and fine granular; soft, very friable, moderately sticky, slightly plastic; few very fine and fine and common medium roots; many very fine and fine irregular pores; strongly effervescent; moderately alkaline (pH 8.1); abrupt smooth boundary.

Ap2—4 to 8 inches; grayish brown (2.5Y 5/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; moderate medium and coarse subangular blocky structure parting to moderate fine and medium subangular blocky; slightly hard, very friable, moderately sticky, slightly plastic; few very fine and fine and common medium roots; common very fine and few fine tubular pores; strongly effervescent; moderately alkaline (pH 8.1); abrupt smooth boundary.

Bw—8 to 12 inches; grayish brown (2.5Y 5/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; moderate medium and coarse subangular blocky structure parting to moderate very fine and fine angular blocky; slightly hard, very friable, moderately sticky, slightly plastic; few very fine and fine and common medium roots; common very fine and few fine tubular pores; cracks 0.5 inch to 1.5 inches wide and about 1.5 feet apart; strongly effervescent; moderately alkaline (pH 7.9); abrupt smooth boundary.



## Soil Survey of Franklin County Area, Idaho

- Bss**—12 to 19 inches; light brownish gray (2.5Y 6/2) silty clay loam, grayish brown (2.5Y 5/2) moist; moderate medium and coarse subangular blocky structure parting to moderate very fine and fine angular blocky; hard, friable, moderately sticky, moderately plastic; few very fine and fine and common medium roots; few very fine tubular pores; cracks 0.5 inch to 1.5 inches wide and about 1.5 feet apart; few intersecting slickensides; strongly effervescent; moderately alkaline (pH 7.9); clear smooth boundary.
- Bkss1**—19 to 30 inches; light gray (2.5Y 7/2) silty clay loam, grayish brown (2.5Y 5/2) moist; moderate medium and coarse subangular blocky structure parting to moderate fine and medium subangular blocky; hard, friable, moderately sticky, moderately plastic; few very fine and fine roots; few very fine tubular pores; common wedge-shaped pedis inclined at 20 to 40 degrees; cracks 0.5 to 1 inch wide and about 1.5 feet apart; few intersecting slickensides; 10 percent hard (friable when moist) cicada nodules; common fine irregularly shaped carbonate filaments; strongly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.
- Bkss2**—30 to 40 inches; pale yellow (5Y 8/2) silty clay, olive (5Y 5/3) moist; moderate medium and coarse subangular blocky structure parting to moderate fine and medium angular blocky; slightly hard, very friable, moderately sticky, moderately plastic; few very fine and fine roots; common very fine tubular pores; few wedge-shaped pedis inclined at 20 to 40 degrees; cracks 0.25 to 0.75 inch wide and about 1.5 feet apart; few intersecting slickensides; 10 percent hard (friable when moist) cicada nodules; many fine and medium irregularly shaped carbonate filaments; violently effervescent; moderately alkaline (pH 8.4); gradual smooth boundary.
- Bkss3**—40 to 60 inches; pale yellow (5Y 7/3) silty clay, olive (5Y 5/3) moist; weak medium prismatic structure parting to moderate fine and medium angular blocky; hard, firm, moderately sticky, moderately plastic; few very fine roots; few very fine tubular pores; few wedge-shaped pedis inclined at 20 to 40 degrees; few intersecting slickensides; few fine irregularly shaped carbonate filaments; violently effervescent; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 20 inches

Depth to a calcic horizon—12 to 37 inches

#### *Ap horizons*

Hue—10YR or 2.5Y

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—30 to 40 percent

Calcium carbonate equivalent—10 to 20 percent

Reaction—pH of 7.4 to 8.4

#### *Bw and Bss horizons*

Hue—10YR, 2.5Y, or 5Y

Value—5 or 6 dry, 3 to 5 moist

Chroma—1 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay

Content of clay—35 to 50 percent



## Soil Survey of Franklin County Area, Idaho

Calcium carbonate equivalent—20 to 25 percent

Reaction—pH of 7.4 to 8.4

### *Bkss horizons*

Hue—10YR, 2.5Y, or 5Y

Value—6 to 8 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.10 to 0.50 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam, silty clay, or clay

Content of clay—35 to 60 percent

Calcium carbonate equivalent—20 to 25 percent

Content of gypsum—0 to 5 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

## Northwater Series

*Depth class:* Deep or very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed colluvium and residuum

*Slope:* 20 to 80 percent

*Elevation:* 5,400 to 8,000 feet

*Mean annual precipitation:* 18 to 30 inches

*Mean annual air temperature:* 36 to 40 degrees F

*Frost-free period:* 30 to 60 days

**Taxonomic classification:** Loamy-skeletal, mixed Cryic Pachic Paleborolls

### Typical Pedon

Northwater gravelly silt loam, in an area of Northwater-Povey complex, 30 to 60 percent slopes; Franklin County, Idaho; about 4 miles north of the town of Mink Creek, Idaho; about 1,100 feet north and 750 feet east of the southwest corner of sec. 16, T. 13 S., R. 41 E.

A1—0 to 2 inches; dark brown (7.5YR 3/2) gravelly silt loam, black (10YR 2/1) moist; strong very fine and fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine irregular pores; 20 percent gravel; neutral (pH 7.0); clear smooth boundary.

A2—2 to 12 inches; dark brown (7.5YR 3/2) gravelly silt loam, black (10YR 2/1) moist; moderate medium and coarse subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky, slightly plastic; common very fine and coarse and few fine roots; many very fine, few fine, and common medium tubular pores; 20 percent gravel; neutral (pH 6.6); clear irregular boundary.

A3—12 to 27 inches; dark brown (7.5YR 3/2) extremely cobbly silt loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine, fine, and coarse roots; many very fine and common fine tubular pores; 15 percent gravel, 35 percent cobbles, and 20 percent stones; neutral (pH 6.6); gradual irregular boundary.

## Soil Survey of Franklin County Area, Idaho

- Bt1—27 to 33 inches; brown (10YR 5/3) extremely cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and coarse and few fine roots; many very fine and common fine tubular pores; few faint clay films on faces of peds and lining pores; 30 percent gravel, 20 percent cobbles, and 15 percent stones; neutral (pH 6.6); clear irregular boundary.
- Bt2—33 to 43 inches; brown (10YR 5/3) extremely cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; slightly hard, very friable, slightly sticky, moderately plastic; common very fine and coarse and few fine roots; many very fine and few fine and medium tubular pores; few faint clay films on faces of peds and lining pores; 30 percent gravel, 35 percent cobbles, and 10 percent stones; neutral (pH 6.6); clear irregular boundary.
- BC1—43 to 52 inches; light yellowish brown (10YR 6/4) extremely cobbly loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine and fine roots; many very fine and few fine and medium tubular pores; 25 percent gravel, 25 percent cobbles, and 10 percent stones; neutral (pH 6.6); clear irregular boundary.
- BC2—52 to 60 inches; light yellowish brown (10YR 6/4) extremely stony loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; few very fine and common medium and coarse roots; many very fine tubular pores; 25 percent gravel, 15 percent cobbles, and 30 percent stones; neutral (pH 6.6).

### Range in Characteristics

*Depth to a restrictive feature:* 40 to 70 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 45 inches

Depth to an argillic horizon—24 to 37 inches

#### *A1 and A2 horizons*

Hue—10YR or 7.5YR

Value—3 or 4 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—3 to 5 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—5 to 18 percent

Content of rock fragments—8 to 45 percent gravel, 0 to 6 percent cobbles

Sodium adsorption ratio—0 to 5

Reaction—pH of 6.6 to 7.3

#### *A3 horizon*

Hue—10YR or 7.5YR

Value—3 to 7 dry, 2 to 5 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam or loam

Content of clay—14 to 18 percent

Content of rock fragments—0 to 28 percent gravel, 20 to 40 percent cobbles, 5 to 30 percent stones

Sodium adsorption ratio—0 to 5

Reaction—pH of 6.6 to 7.3

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### *Bt horizons*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 3 to 6 moist  
Chroma—3 or 4 dry, 2 to 6 moist  
Content of organic matter—1 to 4 percent  
Texture of the fraction less than 2 millimeters in size—loam or clay loam  
Content of clay—10 to 34 percent  
Content of rock fragments—4 to 40 percent gravel, 0 to 37 percent cobbles, 5 to 30 percent stones  
Sodium adsorption ratio—0 to 5  
Reaction—pH of 6.1 to 7.3

### *BC horizons*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 3 to 6 moist  
Chroma—3 or 4 dry, 2 to 6 moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—12 to 26 percent  
Content of rock fragments—20 to 38 percent gravel, 12 to 34 percent cobbles, 5 to 30 percent stones  
Sodium adsorption ratio—0 to 5  
Reaction—pH of 6.1 to 7.3

## Nyman Series

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Residuum weathered from tuff

*Slope:* 30 to 60 percent

*Elevation:* 5,300 to 6,100 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 39 to 42 degrees F

*Frost-free period:* 60 to 80 days

**Taxonomic classification:** Ashy-skeletal Vitrandic Cryoborolls

### Typical Pedon

Nyman channery silt loam, in an area of Nyman-Lonigan-Copenhagen complex, 30 to 60 percent slopes; about 3 miles east-northeast of Preston, in Franklin County, Idaho; about 4,500 feet north and 1,900 feet west of the southeast corner of sec. 16, T. 15 S., R. 40 E.

Oi—0 to 1 inch; slightly decomposed plant material.

A1—1 to 6 inches; black (10YR 2/1) channery silt loam, black (7.5YR 2.5/1) moist; moderate medium and coarse subangular blocky structure parting to moderate fine subangular blocky; slightly hard, very friable, nonsticky, nonplastic; many very fine to very coarse roots; common very fine and fine tubular and irregular pores; 20 percent channers; slightly alkaline (pH 7.6); abrupt irregular boundary.

A2—6 to 12 inches; very dark gray (10YR 3/1) channery loam, black (7.5YR 2.5/1) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; many very fine to very coarse roots; common very

## Soil Survey of Franklin County Area, Idaho

- fine and fine tubular and irregular pores; 15 percent channers; slightly alkaline (pH 7.4); clear wavy boundary.
- A3—12 to 20 inches; brown (7.5YR 4/2) very channery loam, dark brown (7.5YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; common fine to coarse roots; common very fine to coarse tubular pores; 25 percent channers and 10 percent flagstones; neutral (pH 7.3); abrupt wavy boundary.
- Bw1—20 to 25 inches; brown (7.5YR 5/2) very channery loam, brown (7.5YR 4/2) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine and medium roots; common very fine and few fine and medium tubular pores; 35 percent channers and 10 percent flagstones; neutral (pH 7.2); gradual wavy boundary.
- Bw2—25 to 36 inches; brown (7.5YR 5/2) very channery loam, brown (7.5YR 4/2) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; few very fine and fine roots; many very fine irregular pores; 40 percent channers and 10 percent flagstones; neutral (pH 7.2); abrupt irregular boundary.
- R—36 inches; tuff.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—16 to 23 inches

Content of volcanic glass—50 to 65 percent

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A1 horizon*

Hue—10YR, 7.5YR, or N

Value—2 to 5 dry, 2 or 3 moist

Chroma—0 to 3 dry or moist

Content of organic matter—3 to 5 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—8 to 16 percent

Content of rock fragments—11 to 34 percent channers

Reaction—pH of 7.4 to 7.8

Oxalate-extractable Al plus one-half Fe—0.14 to 0.17 percent

Phosphorus retention—15 to 25 percent

15-bar water retention, dry—15 to 25 percent

#### *A2 and A3 horizons*

Hue—10YR, 7.5YR, or N

Value—2 to 5 dry, 2 or 3 moist

Chroma—0 to 3 dry or moist

Content of organic matter—1 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—8 to 16 percent

Content of rock fragments—9 to 58 percent channers, 0 to 17 percent flagstones

Reaction—pH of 6.6 to 7.8

Oxalate-extractable Al plus one-half Fe—0.14 to 0.17 percent

Phosphorus retention—15 to 25 percent

## Soil Survey of Franklin County Area, Idaho

15-bar water retention, dry—15 to 25 percent

### *Bw horizons*

Hue—10YR or 7.5YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—8 to 16 percent

Content of rock fragments—25 to 60 percent channers, 6 to 14 percent flagstones

Reaction—pH of 6.6 to 7.8

Oxalate-extractable Al plus one-half Fe—0.04 to 0.12 percent

Phosphorus retention—30 to 80 percent

15-bar water retention, dry—10 to 25 percent

## Oxford Series

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Landscape:* Lake plains and valleys

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 2 to 50 percent

*Elevation:* 4,700 to 5,200 feet

*Mean annual precipitation:* 15 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 90 to 105 days

**Taxonomic classification:** Fine, montmorillonitic, frigid Vertic Xerochrepts

### Typical Pedon

Oxford silty clay, in an area of Oxford-Banida complex, 4 to 12 percent slopes; about 2.5 miles southeast of Banida, in Franklin County, Idaho; about 600 feet south and 2,400 feet east of the northwest corner of sec. 18, T. 14 S., R. 39 E.

Ap—0 to 5 inches; reddish brown (5YR 5/3) silty clay, reddish brown (5YR 4/3) moist; weak fine subangular blocky structure parting to moderate fine granular; soft, friable, moderately sticky, moderately plastic; few very fine and fine roots; disseminated carbonates; slightly effervescent; slightly alkaline (pH 7.8); clear smooth boundary.

AB—5 to 11 inches; reddish brown (5YR 5/3) silty clay, reddish brown (5YR 4/3) moist; weak medium subangular blocky structure parting to moderate medium granular; hard, firm, very sticky, very plastic; few very fine and fine roots; few 0.25-to-0.5-inch-wide vertical cracks filled with surface material; disseminated carbonates; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bw1—11 to 16 inches; light reddish brown (5YR 6/3) silty clay, reddish brown (5YR 4/4) moist; strong fine subangular blocky structure; very hard, very firm, very sticky, very plastic; few very fine and fine roots; common 0.25-to-0.5-inch-wide vertical cracks filled with surface material; disseminated carbonates; slightly effervescent; moderately alkaline (pH 7.9); clear smooth boundary.

Bw2—16 to 26 inches; light reddish brown (5YR 6/3) silty clay, reddish brown (5YR 4/4) moist; strong fine subangular blocky structure parting to moderate fine angular blocky; extremely hard, very firm, very sticky, very plastic; few very fine

## Soil Survey of Franklin County Area, Idaho

roots; common 0.25-to-1-inch-wide vertical cracks filled with surface material; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.1); clear smooth boundary.

Bky1—26 to 38 inches; light reddish brown (5YR 6/3) clay, reddish brown (5YR 4/4) moist; moderate fine and medium angular blocky structure; extremely hard, very firm, very sticky, very plastic; few fine distinct red (2.5YR 4/6) masses of iron accumulation that are relict redoximorphic features; common 0.25-to-1.12-inch-wide vertical cracks filled with surface material; large pressure faces with very dark gray (5YR 3/1) organic stains; disseminated carbonates; 4 percent gypsum; strongly effervescent; moderately alkaline (pH 8.4); clear wavy boundary.

Bky2—38 to 47 inches; light reddish brown (5YR 6/3) clay, reddish brown (5YR 4/4) moist; strong medium angular blocky structure; extremely hard, very firm, very sticky, very plastic; few fine prominent red (2.5YR 4/6) masses of iron accumulation that are relict redoximorphic features; common 0.25-to-1.12-inch-wide vertical cracks filled with surface material and extending to a depth of 44 inches; cracks and pressure faces with black (5YR 2.5/1) and very dark gray (5YR 3/1) organic stains; disseminated carbonates; 6 percent gypsum; strongly effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

By—47 to 63 inches; pinkish gray (5YR 7/2) silty clay, reddish brown (5YR 5/3) moist; massive; extremely hard, very firm, very sticky, very plastic; common medium distinct dark reddish brown (2.5YR 3/4) masses of iron accumulation that are relict redoximorphic features; few very dark gray (5YR 3/1) organic stains along pressure faces; common fine gypsum crystals in veins; disseminated carbonates; 3 percent gypsum; strongly effervescent in the matrix; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Depth to the base of a cambic horizon—15 to 45 inches

#### *Ap and AB horizons*

Hue—7.5YR or 5YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silty clay

Content of clay—40 to 45 percent

Calcium carbonate equivalent—1 to 15 percent

Reaction—pH of 7.4 to 8.4

#### *Bw horizons*

Hue—7.5YR or 5YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 to 6 dry or moist

Content of organic matter—0.0 percent

Texture of the fraction less than 2 millimeters in size—silty clay or clay

Content of clay—40 to 55 percent

Calcium carbonate equivalent—0 to 5 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

#### *Bky and By horizons*

Hue—7.5YR or 5YR

Value—5 to 7 dry, 3 to 5 moist



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Chroma—2 to 5 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay or clay  
Content of clay—40 to 65 percent  
Calcium carbonate equivalent—1 to 15 percent  
Content of gypsum—1 to 10 percent  
Sodium adsorption ratio—0 to 5  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 7.4 to 8.4

### Parkay Series

*Depth class:* Deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Mountains  
*Landform:* Mountain slopes  
*Parent material:* Mixed alluvium and colluvium  
*Slope:* 30 to 60 percent  
*Elevation:* 6,000 to 7500 feet  
*Mean annual precipitation:* 18 to 26 inches  
*Mean annual air temperature:* 37 to 40 degrees F  
*Frost-free period:* 30 to 60 days

**Taxonomic classification:** Loamy-skeletal, mixed Argic Pachic Cryoborolls

#### Typical Pedon

Parkay gravelly silt loam, in an area of Povey-Parkay complex, 30 to 60 percent slopes; about 2 miles west-southwest of Clifton, in Franklin County, Idaho; about 700 feet north and 1,800 feet east of the southwest corner of sec. 17, T. 14 S., R. 38 E.

Oi—0 to 1 inch; slightly decomposed plant material.

A1—1 to 3 inches; dark grayish brown (10YR 4/2) gravelly silt loam, black (10YR 2/1) moist; moderate coarse and very coarse granular structure; slightly hard, very friable, slightly sticky, slightly plastic; few very fine roots; common very fine and few fine irregular pores; 30 percent gravel; neutral (pH 7.1); clear smooth boundary.

A2—3 to 12 inches; dark grayish brown (10YR 4/2) gravelly silt loam, very dark brown (10YR 2/2) moist; moderate medium and coarse granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and few fine roots; common very fine and few fine tubular pores; 25 percent gravel and 2 percent cobbles; neutral (pH 7.2); clear wavy boundary.

AB—12 to 21 inches; dark grayish brown (10YR 4/2) very gravelly silt loam, very dark brown (10YR 2/2) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine to coarse roots; common very fine and few fine tubular pores; 30 percent gravel and 10 percent cobbles; neutral (pH 7.3); clear wavy boundary.

Bt1—21 to 29 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure parting to moderate fine subangular blocky; hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; common very fine tubular pores; few faint clay films on faces of peds; 20 percent gravel and 15 percent cobbles; neutral (pH 7.3); clear wavy boundary.

Bt2—29 to 42 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium and coarse subangular



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blocky structure parting to moderate fine subangular blocky; hard, firm, moderately sticky, moderately plastic; common very fine and few fine and medium roots; common very fine and few fine tubular and irregular pores; 35 percent gravel and 2 percent cobbles; neutral (pH 7.3); clear wavy boundary.

Bt3—42 to 47 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure parting to moderate fine subangular blocky; hard, firm, moderately sticky, moderately plastic; few very fine and fine roots; common very fine and few fine tubular and irregular pores; 30 percent gravel and 5 percent cobbles; neutral (pH 7.2); abrupt irregular boundary.

R—47 inches; bedrock.

### Range in Characteristics

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 35 inches

Depth to an argillic horizon—8 to 21 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A1 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—3 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 20 percent

Content of rock fragments—9 to 37 percent gravel

Reaction—pH of 6.6 to 7.3

#### *A2 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 25 percent

Content of rock fragments—8 to 43 percent gravel, 0 to 3 percent cobbles

Reaction—pH of 6.6 to 7.3

#### *AB horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 25 percent

Content of rock fragments—17 to 41 percent gravel, 6 to 14 percent cobbles

Reaction—pH of 6.6 to 7.8

#### *Bt1 horizon*

Hue—10YR or 7.5YR

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Value—4 to 6 dry, 3 or 4 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—22 to 27 percent  
Content of rock fragments—16 to 41 percent gravel, 6 to 17 percent cobbles  
Reaction—pH of 6.6 to 7.8

### *Bt2 and Bt3 horizons*

Hue—10YR or 7.5YR  
Value—4 to 6 dry, 3 or 4 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.0 to 1 percent  
Texture of the fraction less than 2 millimeters in size—clay loam  
Content of clay—27 to 35 percent  
Content of rock fragments—17 to 41 percent gravel, 0 to 14 percent cobbles  
Reaction—pH of 6.6 to 7.8

## Parleys Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Lake plains  
*Landform:* Lake terraces  
*Parent material:* Silty alluvium  
*Slope:* 0 to 8 percent  
*Elevation:* 4,400 to 5,000 feet  
*Mean annual precipitation:* 14 to 17 inches  
*Mean annual air temperature:* 45 to 49 degrees F  
*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Calcic Argixerolls

### Typical Pedon

Parleys silt loam, 0 to 4 percent slopes; about 6 miles west of Preston, in Franklin County, Idaho; about 2,400 feet north and 2,360 feet east of the southwest corner of sec. 23, T. 15 S., R. 38 E.

- Ap—0 to 4 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; hard, friable, slightly sticky, slightly plastic; many very fine and fine roots; common fine tubular pores; slightly alkaline (pH 7.4); gradual smooth boundary.
- A—4 to 13 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and fine tubular pores; slightly alkaline (pH 7.6); clear smooth boundary.
- Bt—13 to 18 inches; brown (10YR 5/3) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; very hard, very firm, moderately sticky, moderately plastic; few very fine roots; few very fine tubular pores; few faint clay films on faces of peds; slightly alkaline (pH 7.6); clear smooth boundary.
- Bk1—18 to 35 inches; very pale brown (10YR 8/2) silty clay loam, very pale brown (10YR 7/3) moist; moderate fine subangular blocky structure; hard, friable,

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- moderately sticky, moderately plastic; few very fine and fine roots; disseminated carbonates; violently effervescent; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk2—35 to 50 inches; light gray (10YR 7/2) silty clay loam, pale brown (10YR 6/3) moist; weak fine subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine tubular pores; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- C—50 to 60 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation that are redoximorphic features; disseminated carbonates; violently effervescent; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

- Thickness of the mollic epipedon—10 to 20 inches
- Depth to an argillic horizon—6 to 24 inches
- Depth to a calcic horizon—18 to 40 inches

#### *Water feature*

- Seasonal high water table: Month(s)—January through December; depth—4.0 to 6.0 feet

#### *Ap and A horizons*

- Hue—10YR
- Value—4 or 5 dry, 2 or 3 moist
- Chroma—2 or 3 dry or moist
- Content of organic matter—1 to 4 percent
- Texture of the fraction less than 2 millimeters in size—silt loam
- Content of clay—16 to 26 percent
- Content of rock fragments—0 to 6 percent gravel
- Reaction—pH of 6.6 to 7.8

#### *Bt horizon*

- Hue—10YR
- Value—4 or 5 dry, 3 or 4 moist
- Chroma—2 or 3 dry or moist
- Content of organic matter—0.5 to 2 percent
- Texture of the fraction less than 2 millimeters in size—silty clay loam
- Content of clay—27 to 35 percent
- Content of rock fragments—0 to 6 percent gravel
- Reaction—pH of 7.4 to 7.8

#### *Bk horizons*

- Hue—10YR or 7.5YR
- Value—7 or 8 dry, 6 or 7 moist
- Chroma—2 to 4 dry or moist
- Content of organic matter—0.0 to 1 percent
- Texture of the fraction less than 2 millimeters in size—silty clay loam
- Content of clay—27 to 35 percent
- Content of rock fragments—0 to 6 percent gravel
- Calcium carbonate equivalent—10 to 30 percent
- Sodium adsorption ratio—0 to 3
- Reaction—pH of 7.4 to 8.4

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### *C horizon*

Hue—10YR or 7.5YR  
Value—7 or 8 dry, 5 or 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—16 to 26 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—10 to 30 percent  
Sodium adsorption ratio—0 to 3  
Reaction—pH of 7.9 to 8.4

### **Remarks**

The Parleys soil in map unit 111 (Parleys silt loam, wet, 0 to 2 percent slopes) is subject to rare flooding in February, March, April, and May.

## **Pavohroo Series**

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Mountains  
*Landform:* Mountain slopes  
*Parent material:* Mixed alluvium and colluvium  
*Slope:* 20 to 50 percent  
*Elevation:* 6,000 to 6,900 feet  
*Mean annual precipitation:* 25 to 28 inches  
*Mean annual air temperature:* 37 to 39 degrees F  
*Frost-free period:* 30 to 50 days

**Taxonomic classification:** Fine-loamy, mixed Pachic Cryoborolls

### **Typical Pedon**

Pavohroo silt loam; about 6 miles east of Pocatello, in adjacent Bannock County, Idaho; about 2,480 feet north and 420 feet west of the southeast corner of sec. 25, T. 6 S., R. 35 E.

Oi—0 to 1 inch; slightly decomposed plant material.

Oe—1 to 3 inches; moderately decomposed plant material.

A1—3 to 6 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine, common medium, and few coarse roots; many very fine irregular pores; 10 percent gravel; neutral (pH 6.9); abrupt smooth boundary.

A2—6 to 13 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak fine and medium subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky, slightly plastic; many very fine and fine, common medium, and few coarse roots; many very fine irregular pores; 10 percent gravel; neutral (pH 6.9); clear smooth boundary.

A3—13 to 20 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak coarse subangular blocky structure parting to weak fine and medium subangular blocky; soft, very friable, slightly sticky, slightly plastic; many very fine and fine, common medium, and few coarse roots; common very fine tubular pores; 10 percent gravel; neutral (pH 6.8); clear wavy boundary.

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A4—20 to 29 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak coarse subangular blocky structure parting to weak fine and medium subangular blocky; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and few fine tubular pores; 5 percent gravel and 5 percent cobbles; neutral (pH 6.9); abrupt irregular boundary.

Bw—29 to 63 inches; pale brown (10YR 6/3) stony loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine and medium roots; many very fine tubular pores; 10 percent gravel, 10 percent cobbles, and 5 percent stones; neutral (pH 7.3).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Thickness of the mollic epipedon—20 to 30 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *Oe horizon*

Content of organic matter—60 to 95 percent

Texture—moderately decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A1 horizon*

Hue—10YR

Value—3 to 5 dry, 1 to 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—4 to 8 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—8 to 17 percent

Content of rock fragments—3 to 12 percent gravel

Reaction—pH of 6.1 to 7.3

#### *A2, A3, and A4 horizons*

Hue—10YR

Value—3 to 5 dry, 1 to 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 25 percent

Content of rock fragments—3 to 12 percent gravel, 0 to 6 percent cobbles

Reaction—pH of 6.1 to 7.3

#### *Bw horizon*

Hue—10YR or 2.5Y

Value—3 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 25 percent

Content of rock fragments—2 to 26 percent gravel, 0 to 12 percent cobbles, 0 to 10 percent stones  
Calcium carbonate equivalent—0 to 5 percent  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 6.6 to 8.4

## Picabo Series

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Plains and valleys

*Landform:* Flood plains and stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,700 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 95 days

**Taxonomic classification:** Coarse-silty, carbonatic, frigid Oxyaquic Calcixerolls

### Typical Pedon

Picabo silt loam, in an area of Picabo-Thatcherflats complex, 0 to 1 percent slopes; about 0.5 mile east and 0.5 mile south of Oxford, in Franklin County, Idaho; about 500 feet south and 1,050 feet east of the northwest corner of sec. 34, T. 13 S., R. 38 E.

Ak—0 to 4 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine granular structure; soft, friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; many very fine tubular pores; disseminated carbonates (45 percent calcium carbonate equivalent); strongly effervescent; strongly alkaline (pH 8.9); clear smooth boundary.

ABk—4 to 16 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine granular structure parting to weak fine subangular blocky; soft, friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; many very fine tubular pores; disseminated carbonates (50 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.4); clear wavy boundary.

Bk1—16 to 34 inches; light gray (10YR 7/2) silt loam, light brownish gray (10YR 6/2) moist; moderate fine subangular blocky structure; soft, friable, slightly sticky, nonplastic; many very fine and few fine roots; many very fine tubular pores; common fine carbonate masses (55 percent calcium carbonate equivalent); strongly effervescent; moderately alkaline (pH 8.1); clear wavy boundary.

Bk2—34 to 45 inches; gray (10YR 6/1) silt loam, gray (10YR 5/1) moist; weak medium subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; common very fine and few fine roots; many very fine tubular pores; few fine distinct light yellowish brown (10YR 6/4) masses of iron accumulation; common fine carbonate masses (65 percent calcium carbonate equivalent); violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bk3—45 to 51 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; massive; hard, friable, slightly sticky, slightly plastic; few very fine and fine roots; common very fine tubular pores; few fine distinct light yellowish brown (10YR 6/4) masses of iron accumulation; few fine carbonate

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masses (25 percent calcium carbonate equivalent); violently effervescent; moderately alkaline (pH 7.9); clear smooth boundary.

Bkg1—51 to 58 inches; light olive gray (5Y 6/2) silt loam, olive gray (5Y 5/2) moist; massive; very hard, firm, moderately sticky, moderately plastic; few very fine roots; few very fine tubular pores; many fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; 10 percent hard nodules; few fine carbonate masses (25 percent calcium carbonate equivalent); violently effervescent; moderately alkaline (pH 7.9); clear wavy boundary.

Bkg2—58 to 65 inches; very pale brown (10YR 8/2) silt loam, light gray (10YR 7/2) moist; massive; hard, friable, slightly sticky, slightly plastic; common very fine tubular pores; common fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; 10 percent hard nodules; few fine carbonate masses (30 percent calcium carbonate equivalent); violently effervescent; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 18 inches

Depth to a calcic horizon—5 to 16 inches

Depth to nodules—45 to 55 inches

#### *Water features*

Seasonal high water table: Month(s)—February, March, April, May, June, and July; depth—2.0 to 4.0 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *Ak and ABk horizons*

Hue—10YR or 2.5Y

Value—5 or 6 dry, 3 to 5 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 5 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—10 to 18 percent

Calcium carbonate equivalent—20 to 55 percent

Sodium adsorption ratio—13 to 25

Electrical conductivity (mmhos/cm)—2 to 4

Reaction—pH of 7.9 to 9.0

#### *Bk1 and Bk2 horizons*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 4 to 6 moist

Chroma—1 or 2 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—10 to 18 percent

Calcium carbonate equivalent—40 to 70 percent

Sodium adsorption ratio—1 to 8

Electrical conductivity (mmhos/cm)—0 to 4

Reaction—pH of 7.9 to 8.4

#### *Bk3 horizon*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 4 to 6 moist

Chroma—1 or 2 dry or moist

Content of organic matter—0.0 to 0.5 percent



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Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—10 to 18 percent  
Calcium carbonate equivalent—20 to 40 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 7.9 to 8.4

### *Bkg horizons*

Hue—10YR or 5Y  
Value—6 to 8 dry, 4 to 7 moist  
Chroma—1 or 2 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—10 to 15 percent  
Calcium carbonate equivalent—15 to 40 percent  
Calcium carbonate nodules, gravel size: 5 to 15 percent  
Sodium adsorption ratio—0 to 8  
Electrical conductivity (mmhos/cm)—0 to 4  
Reaction—pH of 7.9 to 8.4

## Pollynot Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 20 percent

*Elevation:* 4,600 to 5,100 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 47 degrees F

*Frost-free period:* 100 to 120 days

**Taxonomic classification:** Fine-loamy, mixed, mesic Calcic Argixerolls

### Typical Pedon

Pollynot silt loam, 0 to 2 percent slopes; about 4 miles north and 3 miles east of Preston, in Franklin County, Idaho; about 50 feet south and 1,500 feet west of the northeast corner of sec. 30, T. 14 S., R. 40 E.

A1—0 to 9 inches; brown (7.5YR 4/2) silt loam, dark brown (7.5YR 3/2) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine and fine irregular pores; 3 percent gravel; moderately alkaline (pH 8.0); abrupt smooth boundary.

A2—9 to 13 inches; brown (7.5YR 4/2) silt loam, dark brown (7.5YR 3/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine and fine tubular pores; disseminated carbonates; slightly effervescent; 5 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.

AB—13 to 15 inches; brown (7.5YR 5/2) silt loam, brown (7.5YR 4/2) moist; moderate fine subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; few very fine and fine roots; common fine tubular pores; disseminated carbonates; slightly effervescent; 12 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.

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- Bt—15 to 26 inches; reddish brown (5YR 5/3) silty clay loam, reddish brown (5YR 4/3) moist; weak fine prismatic structure parting to moderate medium subangular blocky; hard, friable, moderately sticky, moderately plastic; few very fine and fine roots; few fine tubular pores; common faint clay films on faces of pedis and few distinct clay films lining pores; 13 percent gravel; slightly alkaline (pH 7.4); clear smooth boundary.
- Bk—26 to 32 inches; pink (7.5YR 7/4) silt loam, light brown (7.5YR 6/4) moist; weak medium subangular blocky structure; hard, friable, slightly sticky, slightly plastic; few very fine roots; few fine tubular pores; disseminated carbonates; strongly effervescent; 2 percent gravel; moderately alkaline (pH 8.0); clear wavy boundary.
- C1—32 to 44 inches; pink (7.5YR 7/4) silt loam, brown (7.5YR 5/4) moist; massive; hard, friable, slightly sticky, slightly plastic; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.6); clear smooth boundary.
- 2C2—44 to 61 inches; pink (7.5YR 7/4) loamy fine sand, brown (7.5YR 5/4) moist; massive; soft, very friable, nonsticky, nonplastic; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—9 to 17 inches

Depth to an argillic horizon—10 to 19 inches

Depth to a calcic horizon—20 to 40 inches

#### *A horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 23 percent

Content of rock fragments—0 to 6 percent gravel

Reaction—pH of 7.4 to 8.4

#### *AB horizon*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 27 percent

Content of rock fragments—0 to 17 percent gravel

Reaction—pH of 7.9 to 8.4

#### *Bt horizon*

Hue—10YR, 7.5YR, or 5YR

Value—4 or 5 dry or moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—28 to 35 percent

Content of rock fragments—0 to 17 percent gravel

Reaction—pH of 7.9 to 8.4

## Soil Survey of Franklin County Area, Idaho

### *Bk and C1 horizons*

Hue—10YR or 7.5YR  
Value—6 or 7 dry, 4 to 6 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 25 percent  
Content of rock fragments—0 to 17 percent gravel  
Calcium carbonate equivalent—15 to 25 percent  
Sodium adsorption ratio—1 to 13  
Reaction—pH of 7.9 to 9.0

### *2C horizon*

Hue—10YR or 7.5YR  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—loamy fine sand  
Content of clay—5 to 12 percent  
Calcium carbonate equivalent—10 to 15 percent  
Sodium adsorption ratio—1 to 13  
Reaction—pH of 7.9 to 9.0

## **Polumar Series**

*Depth class:* Deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Colluvium and residuum derived from limestone

*Slope:* 25 to 70 percent

*Elevation:* 5,500 to 6,700 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 40 to 43 degrees F

*Frost-free period:* 60 to 75 days

**Taxonomic classification:** Loamy-skeletal, mixed Calcic Pachic Cryoborolls

### **Typical Pedon**

Polumar gravelly silt loam (fig. 17), in an area of Polumar-Ireland complex, 30 to 60 percent slopes; about 3 miles southeast of Thatcher, in Franklin County, Idaho; about 650 feet north and 2,450 feet west of the southeast corner of sec. 9, T. 12 S., R. 41 E.

A1—0 to 6 inches; dark grayish brown (10YR 4/2) gravelly silt loam, very dark brown (10YR 2/2) moist; moderate medium and coarse granular structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine and common fine to coarse roots; many very fine and few fine irregular pores; 25 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); clear smooth boundary.

A2—6 to 11 inches; grayish brown (10YR 5/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to coarse roots; common very fine and few fine tubular and common very fine irregular pores; 15 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.8); clear irregular boundary.



Figure 17.—Typical profile of Polumar gravelly silt loam, in an area of Polumar-Ireland complex, 30 to 60 percent slopes. The scale is in feet.

A3—11 to 18 inches; grayish brown (10YR 5/2) very cobbly silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to coarse roots; common very fine irregular and few very fine and fine tubular pores; 15 percent gravel, 35 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.8); clear wavy boundary.

Bk—18 to 22 inches; brown (10YR 5/3) very cobbly silt loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard,



## Soil Survey of Franklin County Area, Idaho

friable, slightly sticky, slightly plastic; common very fine to medium roots; common very fine and few fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate masses (10 percent calcium carbonate equivalent); slightly effervescent; 10 percent gravel, 35 percent cobbles, and 10 percent stones; moderately alkaline (pH 8.0); abrupt wavy boundary.

Bkq1—22 to 28 inches; pale brown (10YR 6/3) extremely cobbly loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; common very fine irregular and few fine tubular pores; disseminated carbonates; common fine irregularly shaped carbonate masses (20 percent calcium carbonate equivalent); carbonate coatings on the bottom of rock fragments; silica coatings on a few rock fragments; strongly effervescent; 10 percent gravel, 35 percent cobbles, and 15 percent stones; moderately alkaline (pH 8.2); gradual irregular boundary.

Bkq2—28 to 46 inches; light brownish gray (10YR 6/2) extremely cobbly loam, dark grayish brown (10YR 4/2) moist; weak medium and coarse subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine to coarse roots; common very fine irregular and few fine tubular pores; disseminated carbonates; common fine irregularly shaped carbonate masses (25 percent calcium carbonate equivalent); carbonate coatings on the bottom of rock fragments; silica coatings on a few rock fragments; violently effervescent; 10 percent gravel, 30 percent cobbles, and 20 percent stones; moderately alkaline (pH 8.2); abrupt irregular boundary.

R—46 inches; limestone.

### Range in Characteristics

*Depth to a restrictive feature:* 40 to 60 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—18 to 35 inches

Depth to a calcic horizon—15 to 25 inches

#### *A1 and A2 horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 18 percent

Content of rock fragments—2 to 30 percent gravel, 2 to 23 percent cobbles

Reaction—pH of 7.4 to 8.4

#### *A3 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam or loam

Content of clay—14 to 18 percent

Content of rock fragments—1 to 18 percent gravel, 25 to 38 percent cobbles, 3 to 11 percent stones

Reaction—pH of 7.4 to 8.4

#### *Bk horizon*

Hue—10YR or 7.5YR

Value—5 to 7 dry, 3 to 5 moist

## Soil Survey of Franklin County Area, Idaho

Chroma—2 or 3 dry, 2 to 4 moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or loam  
Content of clay—14 to 18 percent  
Content of rock fragments—1 to 16 percent gravel, 25 to 38 percent cobbles, 3 to 11 percent stones  
Calcium carbonate equivalent—1 to 15 percent  
Reaction—pH of 7.9 to 8.4

### *Bkq horizons*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 3 to 5 moist  
Chroma—2 or 3 dry, 2 to 4 moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—12 to 18 percent  
Content of rock fragments—1 to 17 percent gravel, 25 to 38 percent cobbles, 11 to 20 percent stones  
Calcium carbonate equivalent—15 to 30 percent  
Sodium adsorption ratio—0 to 2  
Reaction—pH of 7.9 to 8.4

## Povey Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium and colluvium

*Slope:* 10 to 60 percent

*Elevation:* 5,700 to 8,000 feet

*Mean annual precipitation:* 16 to 30 inches

*Mean annual air temperature:* 36 to 41 degrees F

*Frost-free period:* 30 to 60 days

**Taxonomic classification:** Loamy-skeletal, mixed Pachic Cryoborolls

### Typical Pedon

Povey gravelly silt loam, in an area of Parkay-Povey complex, 30 to 60 percent slopes; about 6 miles northwest of Cleveland, in Franklin County, Idaho; about 700 feet south and 1,100 feet west of the northeast corner of sec. 24, T. 12 S., R. 39 E.

A1—0 to 6 inches; brown (10YR 4/3) gravelly silt loam, very dark brown (10YR 2/2) moist; strong fine and medium granular structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium and few coarse roots; many very fine and few fine irregular pores; 15 percent gravel and 1 percent cobbles; neutral (pH 7.3); abrupt wavy boundary.

A2—6 to 17 inches; brown (10YR 4/3) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak fine and medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and medium and few fine and coarse roots; common very fine and few fine tubular and common very fine irregular pores; 15 percent gravel and 1 percent cobbles; neutral (pH 7.2); abrupt wavy boundary.

## Soil Survey of Franklin County Area, Idaho

- Bw1—17 to 28 inches; yellowish brown (10YR 5/4) very cobbly loam, dark brown (7.5YR 3/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and medium and few fine and coarse roots; common very fine and few fine tubular pores; 20 percent gravel and 30 percent cobbles; neutral (pH 7.0); abrupt wavy boundary.
- Bw2—28 to 38 inches; light brown (7.5YR 6/4) extremely gravelly loam, brown (7.5YR 4/4) moist; weak fine and medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine and coarse roots; common very fine irregular and few fine tubular pores; 50 percent gravel, 10 percent cobbles, and 1 percent stones; slightly acid (pH 6.2); abrupt wavy boundary.
- C—38 to 60 inches; pink (7.5YR 7/4) extremely gravelly sandy loam, brown (7.5YR 5/4) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few very fine, fine, and coarse roots; common very fine irregular and few fine tubular pores; 55 percent gravel, 15 percent cobbles, and 1 percent stones; neutral (pH 6.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—17 to 44 inches

Depth to the base of a cambic horizon—27 to 54 inches

#### *A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—3 to 5 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—10 to 18 percent

Content of rock fragments—8 to 31 percent gravel, 0 to 3 percent cobbles

Reaction—pH of 6.6 to 7.8

#### *Bw horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—2 to 6 percent

Texture of the fraction less than 2 millimeters in size—loam or sandy loam

Content of clay—10 to 20 percent

Content of rock fragments—15 to 51 percent gravel, 0 to 30 percent cobbles, 0 to 3 percent stones

Reaction—pH of 6.1 to 7.3

#### *C horizon*

Hue—10YR or 7.5YR

Value—5 to 7 dry, 4 or 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—sandy loam or loam

Content of clay—8 to 18 percent

Content of rock fragments—8 to 71 percent gravel, 6 to 25 percent cobbles, 0 to 14 percent stones

Reaction—pH of 6.1 to 7.3



## Preston Series

*Depth class:* Very deep

*Drainage class:* Excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Landscape:* Plains and valleys

*Landform:* Dunes

*Parent material:* Sandy eolian material

*Slope:* 0 to 60 percent

*Elevation:* 4,500 to 4,800 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 46 to 48 degrees F

*Frost-free period:* 120 to 130 days

**Taxonomic classification:** Mixed, mesic Typic Xeropsamments

### Typical Pedon

Preston fine sand, 0 to 2 percent slopes; about 2 miles south and 1 mile west of Preston, in Franklin County, Idaho; about 200 feet south and 200 feet east of the northwest corner of sec. 34, T. 15 S., R. 39 E.

Ap—0 to 8 inches; brown (10YR 5/3) fine sand, dark brown (10YR 3/3) moist; single grain; loose; common fine and few very fine roots; slightly alkaline (pH 7.6); clear wavy boundary.

A—8 to 15 inches; brown (10YR 4/3) fine sand, dark brown (10YR 3/3) moist; single grain; loose; common fine and few very fine roots; slightly alkaline (pH 7.6); clear wavy boundary.

C—15 to 65 inches; brown (7.5YR 5/4) loamy fine sand, brown (7.5YR 4/4) moist; single grain; loose; slightly alkaline (pH 7.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Thickness of the ochric epipedon—6 to 15 inches

#### *Ap and A horizons*

Hue—10YR

Value—4 or 6 dry, 3 to 5 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—fine sand

Content of clay—1 to 5 percent

Calcium carbonate equivalent—0 to 1 percent

Reaction—pH of 7.4 to 7.8

#### *C horizon*

Hue—10YR or 7.5YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—sand, loamy fine sand, or fine sand

Content of clay—3 to 10 percent

Calcium carbonate equivalent—0 to 10 percent

Sodium adsorption ratio—0 to 2

Reaction—pH of 7.4 to 8.4

## Ricrest Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills, lake plains, and mountains

*Landform:* Hillslopes, lake terraces, and mountain slopes

*Parent material:* Mixed alluvium and colluvium

*Slope:* 4 to 80 percent

*Elevation:* 4,600 to 6,100 feet

*Mean annual precipitation:* 15 to 20 inches

*Mean annual air temperature:* 40 to 46 degrees F

*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Fine-loamy, mixed, frigid Calcic Pachic Haploxerolls

### Typical Pedon

Ricrest gravelly silt loam, in an area of Hondoho-Ricrest complex, 4 to 20 percent slopes; about 1 mile south and 4 miles east of Thatcher, in Franklin County, Idaho; about 1,600 feet south and 2,250 feet west of the northeast corner of sec. 1, T. 14 S., R. 39 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak thin and medium platy structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine and fine tubular pores; 25 percent gravel; slightly alkaline (pH 7.4); clear smooth boundary.

Bw—6 to 20 inches; dark brown (10YR 3/3) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine tubular pores; 15 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.

Bk1—20 to 25 inches; brown (10YR 4/3) gravelly silt loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine tubular pores; disseminated carbonates; strongly effervescent; 20 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.

Bk2—25 to 31 inches; brown (10YR 4/3) gravelly silt loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; soft, friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine tubular pores; disseminated carbonates; strongly effervescent; 20 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.

Bk3—31 to 45 inches; pale brown (10YR 6/3) gravelly silt loam, dark yellowish brown (10YR 4/4) moist; massive; hard, friable, slightly sticky, nonplastic; common very fine roots; common fine tubular pores; disseminated carbonates; carbonate coatings on the bottom of pebbles; strongly effervescent; 20 percent gravel; moderately alkaline (pH 8.2); clear smooth boundary.

Bk4—45 to 60 inches; yellowish brown (10YR 5/4) gravelly loam, brown (10YR 4/3) moist; massive; hard, firm, moderately sticky, slightly plastic; common very fine roots; common very fine tubular pores; disseminated carbonates; carbonate coatings on the bottom of pebbles; strongly effervescent; 10 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

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### *Diagnostic features*

Thickness of the mollic epipedon—20 to 35 inches

Depth to a calcic horizon—12 to 30 inches

### *Ap horizon*

Hue—10YR

Value—3 or 4 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 5 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 25 percent

Content of rock fragments—13 to 32 percent gravel

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 7.4 to 8.4

### *Bw horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam or clay loam

Content of clay—14 to 32 percent

Content of rock fragments—13 to 32 percent gravel

Calcium carbonate equivalent—5 to 15 percent

Reaction—pH of 7.4 to 8.4

### *Bk horizons*

Hue—10YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam, loam, or clay loam

Content of clay—5 to 30 percent

Content of rock fragments—5 to 51 percent gravel, 0 to 6 percent cobbles

Calcium carbonate equivalent—15 to 40 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

### **Taxadjunct Feature**

The Ricrest soil in map unit 127 (Ricrest gravelly silt loam, 4 to 12 percent slopes) is a taxadjunct to the series because its soil temperature regime is mesic. This difference, however, does not affect the use and management of the soil.

## **Ridgecrest Taxadjunct**

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Alluvium and colluvium derived from limestone

*Slope:* 20 to 50 percent

*Elevation:* 5,300 to 6,300 feet

*Mean annual precipitation:* 15 to 18 inches

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*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 80 days

**Taxonomic classification:** Loamy-skeletal, carbonatic, frigid Typic Calcixerolls

### Typical Pedon

Ridgecrest extremely stony silt loam, in an area of Cedarhill-Hondoho-Ridgecrest complex, 20 to 50 percent slopes; about 6 miles northwest of Hawkins Reservoir, in adjacent Bannock County, Idaho; about 140 feet north and 1,855 feet west of the southeast corner of sec. 32, T. 9 S., R. 35 E.

Ak1—0 to 4 inches; dark grayish brown (10YR 4/2) extremely stony silt loam, very dark brown (10YR 2/2) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and common fine roots; many very fine irregular pores; thick carbonate coatings on the bottom of rock fragments; slightly effervescent; 30 percent gravel, 20 percent cobbles, and 20 percent stones; slightly alkaline (pH 7.6); clear wavy boundary.

Ak2—4 to 14 inches; brown (10YR 5/3) extremely stony silt loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine irregular pores; thick carbonate coatings on the bottom of rock fragments; strongly effervescent; 30 percent gravel, 10 percent cobbles, and 25 percent stones; slightly alkaline (pH 7.6); clear irregular boundary.

Bk1—14 to 19 inches; pale brown (10YR 6/3) extremely stony silt loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine irregular pores; thick carbonate coatings on the bottom of rock fragments; violently effervescent; 10 percent gravel, 15 percent cobbles, and 45 percent stones; slightly alkaline (pH 7.5); gradual irregular boundary.

Bk2—19 to 27 inches; pale brown (10YR 6/3) extremely stony silt loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots that follow the wide cracks in the weathered and fractured limestone; many very fine irregular pores; thick carbonate coatings on the bottom of rock fragments; violently effervescent; 10 percent gravel, 20 percent cobbles, and 55 percent stones; slightly alkaline (pH 7.5); abrupt irregular boundary.

R—27 inches; limestone.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Depth to a calcic horizon—7 to 16 inches

#### *Ak horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—8 to 18 percent

Content of rock fragments—10 to 30 percent gravel, 6 to 20 percent cobbles, 11 to 25 percent stones

Calcium carbonate equivalent—10 to 40 percent

Reaction—pH of 7.4 to 8.4

*Bk horizons*

Hue—10YR or 2.5Y

Value—5 to 8 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—8 to 18 percent

Content of rock fragments—5 to 19 percent gravel, 9 to 25 percent cobbles, 25 to 65 percent stones

Calcium carbonate equivalent—40 to 70 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

**Taxadjunct Feature**

These soils are taxadjuncts to the series because they have a calcic horizon. This difference, however, does not significantly affect the use and management of the soils.

**Robin Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Loess

*Slope:* 15 to 45 percent

*Elevation:* 5,400 to 7,000 feet

*Mean annual precipitation:* 17 to 22 inches

*Mean annual air temperature:* 37 to 41 degrees F

*Frost-free period:* 50 to 70 days

**Taxonomic classification:** Fine-silty, mixed Cryic Pachic Paleborolls

**Typical Pedon**

Robin silt loam, in an area of Dranburn-Robin complex, 15 to 45 percent slopes; about 3.5 miles northeast of the town of Mink Creek, in Franklin County, Idaho; about 600 feet north and 550 feet west of the southeast corner of sec. 21, T. 13 S., R. 41 E.

A1—0 to 2 inches; dark brown (10YR 3/3) silt loam, very dark brown (10YR 2/2) moist; strong fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine roots; many very fine irregular pores; neutral (pH 7.2); abrupt smooth boundary.

A2—2 to 12 inches; dark brown (10YR 3/3) silt loam, very dark brown (10YR 2/2) moist; strong fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine tubular pores; neutral (pH 7.0); clear smooth boundary.

A3—12 to 23 inches; dark brown (10YR 3/3) silt loam, very dark brown (10YR 2/2) moist; moderate medium and coarse subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine tubular pores; neutral (pH 7.1); clear wavy boundary.

BA—23 to 27 inches; brown (10YR 4/3) silt loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse subangular blocky structure; slightly hard,

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very friable, slightly sticky, slightly plastic; common very fine roots; many very fine tubular pores; neutral (pH 7.1); clear wavy boundary.

Bt—27 to 60 inches; yellowish brown (10YR 5/4) silty clay loam, brown (10YR 4/3) moist; moderate medium and coarse subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine roots; common very fine tubular pores; common distinct clay films on faces of peds and lining pores; neutral (pH 7.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—24 to 32 inches

Depth to an argillic horizon—21 to 45 inches

#### *A1 horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—3 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—16 to 20 percent

Reaction—pH of 6.6 to 7.3

#### *A2 and A3 horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 24 percent

Reaction—pH of 6.6 to 7.3

#### *BA horizon*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 24 percent

Reaction—pH of 6.6 to 7.3

#### *Bt horizon*

Hue—10YR or 7.5YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—25 to 35 percent

Reaction—pH of 6.6 to 7.3

## Sanyon Series

*Depth class:* Shallow

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

## Soil Survey of Franklin County Area, Idaho

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Alluvium, colluvium, and residuum derived from tuff

*Slope:* 20 to 50 percent

*Elevation:* 5,000 to 5,600 feet

*Mean annual precipitation:* 16 to 17 inches

*Mean annual air temperature:* 41 to 44 degrees F

*Frost-free period:* 70 to 90 days

**Taxonomic classification:** Ashy-skeletal, frigid, shallow Vitrandic Calcixerolls

### Typical Pedon

Sanyon very gravelly loam, in an area of Sanyon-Staberg-Kabear complex, 20 to 50 percent slopes; about 2 miles south of the town of Mink Creek, in Franklin County, Idaho; about 1,700 feet south and 100 feet west of the northeast corner of sec. 23, T. 14 S., R. 40 E.

A—0 to 5 inches; grayish brown (10YR 5/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine and medium roots; common very fine and few fine tubular pores; disseminated carbonates; strongly effervescent; 35 percent gravel; moderately alkaline (pH 8.2); clear wavy boundary.

Bk1—5 to 11 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine and medium roots; common very fine and few fine tubular pores; carbonate coatings on the bottom of rock fragments; violently effervescent; 35 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.2); clear wavy boundary.

Bk2—11 to 17 inches; light brownish gray (10YR 6/2) extremely gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; few very fine and fine tubular pores; carbonate coatings on the bottom of rock fragments; violently effervescent; 30 percent gravel, 20 percent channers, and 15 percent cobbles; moderately alkaline (pH 8.4); clear wavy boundary.

Cr—17 inches; tuff.

### Range in Characteristics

*Depth to a restrictive feature:* 10 to 20 inches to paralithic bedrock

#### Diagnostic features

Thickness of the mollic epipedon—8 to 15 inches

Depth to a calcic horizon—3 to 8 inches

Content of volcanic glass—70 to 90 percent

#### A horizon

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 18 percent

Content of rock fragments—19 to 40 percent gravel, 0 to 11 percent cobbles

Calcium carbonate equivalent—5 to 15 percent

Reaction—pH of 7.9 to 8.4

Bulk density—0.80 to 1.00



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Oxalate-extractable Al plus one-half Fe—0.14 to 0.17 percent

Phosphorus retention—15 to 25 percent

15-bar water retention, dry—15 to 25 percent

### *Bk horizons*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 18 percent

Content of rock fragments—18 to 35 percent gravel, 10 to 40 percent cobbles, 0 to 25 percent channers

Calcium carbonate equivalent—10 to 20 percent

Reaction—pH of 7.9 to 8.4

Bulk density—1.20 to 1.40

Oxalate-extractable Al plus one-half Fe—0.04 to 0.12 percent

Phosphorus retention—30 to 80 percent

15-bar water retention, dry—10 to 25 percent

## Searla Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Alluvial plains

*Landform:* Fan remnants

*Parent material:* Mixed alluvium and colluvium

*Slope:* 12 to 30 percent

*Elevation:* 5,200 to 6,000 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 44 degrees F

*Frost-free period:* 65 to 90 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Calcic Argixerolls

### Typical Pedon

Searla gravelly loam, in an area of Lizdale-Searla complex, 12 to 30 percent slopes; about 4 miles west of Weston, in Franklin County, Idaho; about 650 feet north and 1,825 feet east of the southwest corner of sec. 30, T. 16 S., R. 38 E.

A—0 to 3 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine roots; many very fine and fine irregular pores; 25 percent gravel; slightly alkaline (pH 7.6); clear smooth boundary.

AB—3 to 9 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and fine roots; many very fine and few fine tubular pores; few faint clay films on faces of peds and lining pores; 20 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.

Bt1—9 to 15 inches; dark yellowish brown (10YR 4/4) very gravelly clay loam, dark brown (7.5YR 3/4) moist; moderate fine and medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine and few fine

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roots; many very fine and few fine tubular pores; many prominent clay films on faces of peds and lining pores; 30 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.8); gradual wavy boundary.

**Bt2**—15 to 28 inches; yellowish brown (10YR 5/4) very gravelly clay loam, brown (7.5YR 4/4) moist; weak fine and medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine and few fine roots; many very fine and few fine tubular pores; many prominent clay films on faces of peds and lining pores; 40 percent gravel and 10 percent cobbles; moderately alkaline (pH 7.9); abrupt wavy boundary.

**Bk**—28 to 60 inches; pale yellow (2.5Y 8/2) extremely gravelly sandy loam, pale yellow (2.5Y 7/3) moist; massive; slightly hard, very friable, nonsticky, nonplastic; few very fine and fine roots; many very fine and few fine irregular pores; disseminated carbonates; few fine irregularly shaped carbonate filaments; strongly effervescent; 60 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—9 to 16 inches

Depth to an argillic horizon—5 to 14 inches

Depth to a calcic horizon—12 to 30 inches

#### *A and AB horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—12 to 20 percent

Content of rock fragments—7 to 32 percent gravel, 0 to 9 percent cobbles

Reaction—pH of 6.6 to 7.8

#### *Bt horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—sandy clay loam or clay loam

Content of clay—27 to 35 percent

Content of rock fragments—14 to 49 percent gravel, 3 to 12 percent cobbles

Reaction—pH of 6.6 to 7.8

#### *Bk horizon*

Hue—10YR or 2.5Y

Value—7 or 8 dry, 6 or 7 moist

Chroma—2 or 3 dry, 3 or 4 moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—sandy loam or loam

Content of clay—5 to 22 percent

Content of rock fragments—0 to 66 percent gravel, 5 to 20 percent cobbles

Calcium carbonate equivalent—1 to 15 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 8.4

## Sedgway Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed alluvium and colluvium

*Slope:* 20 to 50 percent

*Elevation:* 6,000 to 6,900 feet

*Mean annual precipitation:* 25 to 28 inches

*Mean annual air temperature:* 37 to 39 degrees F

*Frost-free period:* 30 to 50 days

**Taxonomic classification:** Loamy-skeletal, mixed Boralfic Cryoborolls

### Typical Pedon

Sedgway gravelly silt loam; about 5.5 miles southeast of Arimo, in adjacent Bannock County, Idaho; about 100 feet north and 945 feet west of the southeast corner of sec. 19, T. 10 S., R. 38 E.

Oi—0 to 1 inch; slightly decomposed plant material.

Oe—1 to 2 inches; moderately decomposed plant material.

A1—2 to 7 inches; very dark grayish brown (10YR 3/2) gravelly silt loam, black (10YR 2/1) moist; weak coarse subangular blocky structure parting to weak fine subangular blocky; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and common medium and coarse roots; many very fine tubular and common very fine irregular pores; 15 percent gravel and 5 percent cobbles; moderately acid (pH 5.7); abrupt smooth boundary.

A2—7 to 14 inches; dark grayish brown (10YR 4/2) very cobbly silt loam, very dark brown (10YR 2/2) moist; weak medium and coarse subangular blocky structure parting to weak fine subangular blocky; soft, very friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; many very fine tubular and few very fine irregular pores; 15 percent gravel, 20 percent cobbles, and 10 percent stones; moderately acid (pH 5.7); clear smooth boundary.

E—14 to 23 inches; pale brown (10YR 6/3) very cobbly loam, brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common coarse and few very fine to medium roots; common very fine tubular pores; 15 percent gravel, 30 percent cobbles, and 10 percent stones; moderately acid (pH 6.0); clear wavy boundary.

Bt/E—23 to 29 inches; 80 percent yellowish brown (10YR 5/4) very cobbly clay loam, dark yellowish brown (10YR 3/4) moist, and 20 percent pale brown (10YR 6/3) very cobbly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium and coarse angular blocky structure; hard, firm, very sticky, very plastic; common coarse and few very fine to medium roots; common very fine and few fine tubular pores; common distinct clay films on faces of peds and lining pores; E material occurring in pockets and as skeletons on the faces of peds; 20 percent gravel, 25 percent cobbles, and 10 percent stones; moderately acid (pH 6.0); gradual wavy boundary.

Bt1—29 to 34 inches; yellowish brown (10YR 5/4) very cobbly clay loam, dark yellowish brown (10YR 3/4) moist; moderate medium and coarse angular blocky structure; hard, firm, very sticky, very plastic; few very fine to medium roots;

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common very fine tubular pores; many distinct clay films on faces of peds and lining pores; 20 percent gravel, 25 percent cobbles, and 10 percent stones; slightly acid (pH 6.3); gradual wavy boundary.

Bt2—34 to 62 inches; yellowish brown (10YR 5/4) very cobbly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium angular blocky structure; hard, firm, moderately sticky, moderately plastic; few very fine to medium roots; common very fine tubular pores; many distinct clay films on faces of peds and lining pores; 15 percent gravel, 25 percent cobbles, and 10 percent stones; slightly acid (pH 6.3).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 16 inches

Depth to an argillic horizon—12 to 30 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *Oe horizon*

Content of organic matter—60 to 95 percent

Texture—moderately decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A1 horizon*

Hue—10YR

Value—3 or 4 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—15 to 25 percent

Content of rock fragments—10 to 20 percent gravel, 0 to 6 percent cobbles

Reaction—pH of 5.6 to 6.5

#### *A2 horizon*

Hue—10YR

Value—3 or 4 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam or loam

Content of clay—15 to 25 percent

Content of rock fragments—3 to 22 percent gravel, 17 to 28 percent cobbles, 3 to 12 percent stones

Reaction—pH of 5.6 to 6.5

#### *E horizon*

Hue—10YR

Value—6 or 7 dry, 3 to 5 moist

Chroma—3 or 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—sandy loam, loam, or silt loam

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Content of clay—15 to 25 percent

Content of rock fragments—5 to 27 percent gravel, 17 to 28 percent cobbles, 3 to 12 percent stones

Reaction—pH of 5.6 to 6.5

### *Bt/E and Bt horizons*

Hue—10YR

Value—5 to 7 dry, 3 or 4 moist

Chroma—3 to 6 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—clay loam or silty clay loam

Content of clay—27 to 34 percent

Content of rock fragments—5 to 27 percent gravel, 17 to 28 percent cobbles, 3 to 12 percent stones

Reaction—pH of 5.6 to 6.5

## Smidale Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Colluvium derived from shale

*Slope:* 20 to 60 percent

*Elevation:* 4,600 to 6,000 feet

*Mean annual precipitation:* 16 to 19 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 70 to 95 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Pachic Haploxerolls

### Typical Pedon

Smidale very channery silt loam, in an area of Smidale-Staberg complex, 20 to 60 percent slopes; about 6.5 miles northeast of Preston, in Franklin County, Idaho; about 1,800 feet south and 150 feet east of the northwest corner of sec. 28, T. 14 S., R. 40 E.

Oi—0 to 1 inch; slightly decomposed plant material.

A1—1 to 3 inches; very dark grayish brown (10YR 3/2) very channery silt loam, black (10YR 2/1) moist; strong very fine and fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine irregular pores; 35 percent channers (80 percent of which are less than 5 millimeters across); slightly acid (pH 6.5); clear smooth boundary.

A2—3 to 9 inches; very dark grayish brown (10YR 3/2) very channery silt loam, black (10YR 2/1) moist; strong very fine and fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine roots; common very fine tubular and irregular and common fine tubular pores; 35 percent channers (80 percent of which are less than 5 millimeters across); neutral (pH 6.6); clear smooth boundary.

Bw1—9 to 26 inches; very dark grayish brown (10YR 3/2) very channery silt loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and medium roots; common very fine and fine tubular pores; 40 percent channers (80

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percent of which are less than 5 millimeters across); neutral (pH 6.8); clear smooth boundary.

**Bw2**—26 to 39 inches; very dark grayish brown (10YR 3/2) very channery silt loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and medium roots; common very fine and fine tubular pores; 45 percent channers (80 percent of which are less than 5 millimeters across); neutral (pH 6.8); gradual wavy boundary.

**Bw3**—39 to 46 inches; very dark grayish brown (10YR 3/2) very channery silt loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, moderately plastic; common very fine and medium roots; common very fine and few fine tubular pores; 45 percent channers (80 percent of which are less than 5 millimeters across); neutral (pH 7.1); gradual wavy boundary.

**Bw4**—46 to 61 inches; very dark grayish brown (10YR 3/2) very channery silt loam, black (10YR 2/1) moist; moderate medium and coarse subangular blocky structure; hard, very friable, moderately sticky, moderately plastic; common very fine and medium and few coarse roots; common very fine and few fine tubular pores; 50 percent channers (80 percent of which are less than 5 millimeters across); neutral (pH 7.1).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Thickness of the mollic epipedon—more than 50 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Content of organic matter—4 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 24 percent

Content of rock fragments—30 to 50 percent channers

Reaction—pH of 6.1 to 7.3

#### *Bw1 and Bw2 horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Content of organic matter—3 to 5 percent

Texture of the fraction less than 2 millimeters in size—loam or silt loam

Content of clay—16 to 27 percent

Content of rock fragments—30 to 50 percent channers

Reaction—pH of 6.6 to 7.3

#### *Bw3 and Bw4 horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist



Content of organic matter—1 to 4 percent  
Texture of the fraction less than 2 millimeters in size—loam, silt loam, or clay loam  
Content of clay—24 to 30 percent  
Content of rock fragments—35 to 55 percent channers  
Reaction—pH of 6.6 to 7.3

## Softback Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Hills and mountains  
*Landform:* Hillslopes and mountain slopes  
*Parent material:* Mixed colluvium  
*Slope:* 12 to 65 percent  
*Elevation:* 4,900 to 6,600 feet  
*Mean annual precipitation:* 16 to 19 inches  
*Mean annual air temperature:* 41 to 44 degrees F  
*Frost-free period:* 60 to 90 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Pachic Argixerolls

### Typical Pedon

Softback gravelly silt loam, in an area of Bergquist-Softback complex, 25 to 65 percent slopes; about 1 mile north of the Oneida Narrows Reservoir Dam, in Franklin County, Idaho; about 1,050 feet south and 1,350 feet east of the northwest corner of sec. 24, T. 13 S., R. 40 E.

- Oi—0 to 1 inch; slightly decomposed plant material; abrupt smooth boundary.
- A1—1 to 4 inches; very dark gray (10YR 3/1) gravelly silt loam, black (10YR 2/1) moist; strong fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and few fine roots; common very fine irregular and tubular pores; 20 percent gravel; neutral (pH 7.2); clear wavy boundary.
- A2—4 to 10 inches; very dark gray (10YR 3/1) gravelly silt loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine and few fine tubular pores; 20 percent gravel; slightly acid (pH 6.2); clear wavy boundary.
- A3—10 to 24 inches; very dark gray (10YR 3/1) very cobbly silt loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure parting to moderate very fine subangular blocky; soft, very friable, slightly sticky, slightly plastic; common very fine and medium and few fine roots; many very fine and few fine tubular pores; 15 percent gravel, 25 percent cobbles, and 15 percent stones; slightly acid (pH 6.2); clear wavy boundary.
- Bt1—24 to 30 inches; brown (7.5YR 5/3) very gravelly silt loam, brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, moderately sticky, moderately plastic; common very fine roots; many very fine and few fine tubular pores; few faint clay films on faces of pedis and lining pores; 30 percent gravel and 20 percent cobbles; slightly acid (pH 6.2); clear wavy boundary.
- Bt2—30 to 39 inches; brown (7.5YR 5/3) very gravelly clay loam, brown (7.5YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, moderately sticky, moderately plastic; common very fine and few fine roots; many very fine and few fine tubular and common very fine irregular pores;



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common distinct clay films on faces of peds and lining pores; 30 percent gravel and 15 percent cobbles; neutral (pH 6.9); gradual wavy boundary.

Bt3—39 to 63 inches; light brown (7.5YR 6/3) extremely gravelly silty clay loam, brown (7.5YR 4/3) moist; moderate medium and coarse subangular blocky structure parting to strong very fine and fine subangular blocky; hard, friable, moderately sticky, very plastic; common very fine and few fine roots; many very fine and few fine tubular and common very fine irregular pores; common distinct clay films on faces of peds and lining pores; 35 percent gravel, 20 percent cobbles, and 15 percent stones; neutral (pH 6.9).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 26 inches

Depth to an argillic horizon—20 to 26 inches

#### *Oi horizon*

Content of organic matter—60 to 95 percent

Texture—slightly decomposed plant material

Content of clay—0 to 25 percent

Reaction—pH of 4.5 to 5.5

#### *A1 and A2 horizons*

Hue—10YR or 7.5YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 18 percent

Content of rock fragments—6 to 31 percent gravel

Reaction—pH of 6.1 to 7.3

#### *A3 horizon*

Hue—10YR or 7.5YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 25 percent

Content of rock fragments—6 to 28 percent gravel, 6 to 28 percent cobbles, 0 to 17 percent stones

Reaction—pH of 6.1 to 7.3

#### *Bt1 horizon*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 to 5 moist

Chroma—2 to 6 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 27 percent

Content of rock fragments—14 to 41 percent gravel, 6 to 23 percent cobbles, 0 to 6 percent stones

Reaction—pH of 6.1 to 7.3

#### *Bt2 and Bt3 horizons*

Hue—10YR or 7.5YR

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Value—4 to 6 dry, 3 to 5 moist  
Chroma—2 to 6 dry or moist  
Content of organic matter—0.0 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or clay loam  
Content of clay—27 to 35 percent  
Content of rock fragments—13 to 44 percent gravel, 6 to 20 percent cobbles, 0 to 17 percent stones  
Reaction—pH of 6.1 to 7.3

### Sprollow Series

*Depth class:* Moderately deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Mountains  
*Landform:* Mountain slopes  
*Parent material:* Alluvium and residuum derived from limestone  
*Slope:* 20 to 70 percent  
*Elevation:* 5,100 to 6,700 feet  
*Mean annual precipitation:* 14 to 20 inches  
*Mean annual air temperature:* 40 to 45 degrees F  
*Frost-free period:* 60 to 95 days

**Taxonomic classification:** Loamy-skeletal, carbonatic, frigid Calcixerollic  
Xerochrepts

#### Typical Pedon

Sprollow gravelly silt loam, in an area of Sprollow-Hondoho complex, 30 to 60 percent slopes; about 3 miles east of Thatcher, in Franklin County, Idaho; about 2,250 feet north and 1,200 feet west of the southeast corner of sec. 8, T. 12 S., R. 41 E.

- A—0 to 3 inches; light brownish gray (10YR 6/2) gravelly silt loam, dark grayish brown (10YR 4/2) moist; moderate thick platy structure parting to moderate fine and medium subangular blocky; soft, very friable, slightly sticky, slightly plastic; common very fine and fine and few medium roots; common very fine and few fine irregular pores; disseminated carbonates (35 percent calcium carbonate equivalent); strongly effervescent; 25 percent gravel, 5 percent cobbles, and 2 percent stones; moderately alkaline (pH 8.1); abrupt smooth boundary.
- ABk—3 to 14 inches; light brownish gray (10YR 6/2) gravelly silt loam, grayish brown (10YR 5/2) moist; moderate fine and medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine to medium roots; common very fine irregular pores; disseminated carbonates; few fine irregularly shaped carbonate masses (30 percent calcium carbonate equivalent); violently effervescent; 25 percent gravel, 3 percent cobbles, and 2 percent stones; moderately alkaline (pH 8.2); clear wavy boundary.
- Bk1—14 to 27 inches; light gray (10YR 7/2) very cobbly silt loam, grayish brown (10YR 5/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and few fine and medium roots; common very fine and few fine and medium tubular and irregular pores; disseminated carbonates; few fine irregularly shaped carbonate masses and filaments (50 percent calcium carbonate equivalent); violently effervescent; 10 percent gravel, 35 percent cobbles, and 10 percent stones; moderately alkaline (pH 8.4); gradual wavy boundary.

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Bk2—27 to 39 inches; light brownish gray (10YR 6/2) very cobbly silt loam, grayish brown (10YR 5/2) moist; weak medium and coarse subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine irregular pores; disseminated carbonates; common fine and medium irregularly shaped carbonate masses; (40 percent calcium carbonate equivalent); violently effervescent; 15 percent gravel, 20 percent cobbles, and 5 percent stones; moderately alkaline (pH 8.4); abrupt irregular boundary.

R—39 inches; limestone.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

#### *Diagnostic feature*

Depth to a calcic horizon—7 to 15 inches

#### *A horizon*

Hue—10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 17 percent

Content of rock fragments—7 to 41 percent gravel, 0 to 6 percent cobbles, 0 to 6 percent stones

Calcium carbonate equivalent—10 to 40 percent

Reaction—pH of 7.4 to 8.4

#### *ABk horizon*

Hue—10YR

Value—5 to 7 dry or moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—12 to 17 percent

Content of rock fragments—7 to 41 percent gravel, 0 to 6 percent cobbles, 1 to 3 percent stones

Calcium carbonate equivalent—20 to 45 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 8.4

#### *Bk horizons*

Hue—10YR

Value—6 to 8 dry, 4 to 6 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—10 to 17 percent

Content of rock fragments—1 to 17 percent gravel, 20 to 38 percent cobbles, 5 to 14 percent stones

Calcium carbonate equivalent—40 to 75 percent

Sodium adsorption ratio—0 to 5

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

## Staberg Series

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills and mountains

*Landform:* Hillslopes and mountain slopes

*Parent material:* Alluvium, colluvium, and residuum derived from shale

*Slope:* 4 to 50 percent

*Elevation:* 4,600 to 6,000 feet

*Mean annual precipitation:* 16 to 20 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Pachic Argixerolls

### Typical Pedon

Staberg loam, in an area of Kabear-Staberg-Copenhagen complex, 4 to 12 percent slopes; about 3 miles south and 3 miles west of the town of Mink Creek, in Franklin County, Idaho; about 800 feet north and 1,100 feet east of the southwest corner of sec. 25, T. 14 S., R. 40 E.

Ap—0 to 10 inches; dark grayish brown (10YR 4/2) loam, very dark brown (10YR 2/2) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; many very fine irregular and tubular pores; 10 percent gravel; slightly acid (pH 6.4); clear wavy boundary.

BA—10 to 23 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine to medium roots; many very fine irregular and tubular pores; 15 percent gravel; neutral (pH 6.6); clear wavy boundary.

Bt—23 to 33 inches; brown (10YR 5/3) very cobbly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; few very fine to medium roots; common very fine irregular pores; common faint clay films on faces of peds and lining pores; 5 percent gravel and 35 percent cobbles; neutral (pH 6.6); clear wavy boundary.

C—33 to 38 inches; very pale brown (10YR 7/3) very cobbly sandy loam, olive brown (2.5Y 4/4) moist; massive; hard, friable, nonsticky, nonplastic; few very fine to medium roots; common very fine irregular pores; 35 percent cobbles; neutral (pH 6.8); abrupt wavy boundary.

Cr—38 inches; tuffaceous shale.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to paralithic bedrock

#### Diagnostic features

Thickness of the mollic epipedon—20 to 40 inches

Depth to an argillic horizon—14 to 25 inches

#### Ap horizon

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

## Soil Survey of Franklin County Area, Idaho

Content of clay—10 to 18 percent  
Content of rock fragments—3 to 18 percent gravel, 0 to 3 percent cobbles  
Reaction—pH of 6.6 to 7.3

### *BA horizon*

Hue—10YR  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—18 to 22 percent  
Content of rock fragments—10 to 24 percent gravel, 0 to 3 percent cobbles  
Reaction—pH of 6.6 to 7.3

### *Bt horizon*

Hue—10YR  
Value—4 or 5 dry, 3 or 4 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—18 to 27 percent  
Content of rock fragments—1 to 24 percent gravel, 17 to 38 percent cobbles  
Reaction—pH of 6.6 to 7.8

### *C horizon*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—sandy loam  
Content of clay—5 to 15 percent  
Content of rock fragments—0 to 33 percent gravel, 20 to 45 percent cobbles  
Reaction—pH of 6.6 to 7.8

## **Sterling Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Drainage class:* Somewhat excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Alluvial plains, lake plains, and valleys

*Landform:* Fan remnants, lake terraces, and stream terraces

*Parent material:* Alluvium derived from limestone

*Slope:* 0 to 60 percent

*Elevation:* 4,400 to 5,200 feet

*Mean annual precipitation:* 14 to 17 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 135 days

**Taxonomic classification:** Loamy-skeletal, mixed, mesic Typic Calcixerolls

### **Typical Pedon**

Sterling gravelly loam, 0 to 4 percent slopes; about 1 mile south of Weston, in Franklin County, Idaho; about 1,100 feet south and 2,000 feet west of the northeast corner of sec. 14, T. 16 S., R. 38 E.

## Soil Survey of Franklin County Area, Idaho

- Ap—0 to 8 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very fine granular structure; soft, very friable, nonsticky, nonplastic; many very fine, common fine, and few medium and coarse roots; disseminated carbonates; slightly effervescent; 25 percent gravel; slightly alkaline (pH 7.7); abrupt smooth boundary.
- Bk1—8 to 18 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, nonplastic; common very fine and fine and few medium and coarse roots; disseminated carbonates; violently effervescent; 35 percent gravel; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk2—18 to 26 inches; very pale brown (10YR 7/3) very gravelly loam, brown (10YR 4/3) moist; weak very fine subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; common very fine and few fine and medium roots; disseminated carbonates; violently effervescent; 35 percent gravel; moderately alkaline (pH 7.9); clear wavy boundary.
- Bk3—26 to 66 inches; very pale brown (10YR 7/3) very gravelly loam, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky, nonplastic; disseminated carbonates; violently effervescent; 55 percent gravel; moderately alkaline (pH 8.0).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 18 inches

Depth to a calcic horizon—7 to 13 inches

#### *Ap horizon*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 20 percent

Content of rock fragments—0 to 43 percent gravel

Calcium carbonate equivalent—5 to 15 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.4 to 8.4

#### *Bk horizons*

Hue—10YR or 2.5Y

Value—5 to 7 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 22 percent

Content of rock fragments—15 to 73 percent gravel

Calcium carbonate equivalent—10 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.4 to 8.4

## Stinkcreek Series

*Depth class:* Very deep

*Drainage class:* Poorly drained

## Soil Survey of Franklin County Area, Idaho

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Plains and valleys

*Landform:* Flood plains and stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,400 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 49 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Fine-silty over sandy or sandy-skeletal, mesic Aeric  
Calcicquolls

### Typical Pedon

Stinkcreek silty clay loam, in an area of Windernot-Lewnot-Stinkcreek complex, 0 to 2 percent slopes; about 0.3 mile northwest of Franklin City, in Franklin County, Idaho; about 2,600 feet north and 1,950 feet west of the southeast corner of sec. 20, T. 16 S., R. 40 E.

A—0 to 11 inches; very dark gray (10YR 3/1) silty clay loam, black (10YR 2/1) moist; moderate medium subangular blocky structure; hard, friable, moderately sticky, moderately plastic; many very fine to medium roots; few fine tubular pores; disseminated carbonates; slightly effervescent; very strongly alkaline (pH 9.4); clear smooth boundary.

Bk—11 to 21 inches; light gray (10YR 7/2) silty clay loam, grayish brown (10YR 5/2) moist; moderate medium subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common fine roots; few fine tubular pores; few fine and medium faint brown (10YR 5/3) masses of iron accumulation; disseminated carbonates; violently effervescent; very strongly alkaline (pH 9.2); abrupt wavy boundary.

2C1—21 to 40 inches; light gray (10YR 7/2) very gravelly loamy sand, grayish brown (10YR 5/2) moist; single grain; loose, nonsticky, nonplastic; few very fine roots; few fine faint brown (10YR 5/3) masses of iron accumulation; disseminated carbonates; strongly effervescent; 50 percent gravel; moderately alkaline (pH 8.2); gradual wavy boundary.

2C2—40 to 60 inches; light gray (10YR 7/2) extremely gravelly sand, grayish brown (10YR 5/2) moist; single grain; loose, nonsticky, nonplastic; few very fine roots; disseminated carbonates; strongly effervescent; 75 percent gravel; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—10 to 18 inches

Depth to a calcic horizon—10 to 16 inches

Depth to redoximorphic features—10 to 16 inches

Aquic conditions

#### Water features

Seasonal high water table: Month(s)—February, March, April, May, and June;  
depth—0.0 to 1.5 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### A horizon

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist



## Soil Survey of Franklin County Area, Idaho

Chroma—1 or 2 dry or moist  
Content of organic matter—3 to 5 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 35 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 15 percent  
Sodium adsorption ratio—13 to 30  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 9.1 to 11.0

### *Bk horizon*

Hue—10YR, 2.5Y, or 5Y  
Value—5 to 7 dry, 4 or 5 moist  
Chroma—2 or 3 dry or moist (2 or more where hue is 2.5Y or yellower and faint redoximorphic features occur; 3 where hue is 2.5Y or yellower and distinct or prominent redoximorphic features occur)  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—18 to 35 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—15 to 25 percent  
Sodium adsorption ratio—13 to 30  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 9.1 to 11.0

### *2C1 horizon*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 3 to 5 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—loamy sand  
Content of clay—1 to 5 percent  
Content of rock fragments—50 to 85 percent gravel  
Calcium carbonate equivalent—10 to 20 percent  
Sodium adsorption ratio—0 to 13  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 11.0

### *2C2 horizon*

Hue—10YR or 2.5Y  
Value—6 or 7 dry, 3 to 5 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—sand  
Content of clay—1 to 3 percent  
Content of rock fragments—50 to 85 percent gravel  
Calcium carbonate equivalent—1 to 15 percent  
Sodium adsorption ratio—0 to 13  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 11.0

## **Thatcher Series**

*Depth class:* Very deep

*Drainage class:* Well drained

## Soil Survey of Franklin County Area, Idaho

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills

*Landform:* Hillslopes

*Parent material:* Mixed alluvium and lacustrine deposits

*Slope:* 4 to 30 percent

*Elevation:* 4,900 to 5,600 feet

*Mean annual precipitation:* 13 to 20 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 100 days

**Taxonomic classification:** Fine-silty, mixed, frigid Calcic Argixerolls

### Typical Pedon

Thatcher loam, in an area of Thatcher-Bearhollow complex, 6 to 20 percent slopes; about 1 mile south and 5 miles west of Weston, in Franklin County, Idaho; about 325 feet south and 2,550 feet west of the northeast corner of sec. 19, T. 16 S., R. 38 E.

Ap—0 to 8 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and common medium roots; common very fine tubular pores; disseminated carbonates; slightly effervescent; neutral (pH 7.1); 10 percent gravel; clear irregular boundary.

Bt1—8 to 12 inches; brown (10YR 5/3) silty clay loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine and fine roots; common very fine tubular pores; common faint clay films on faces of peds; 2 percent gravel; neutral (pH 7.1); clear wavy boundary.

Bt2—12 to 21 inches; pale brown (10YR 6/3) silty clay loam, brown (10YR 4/3) moist; weak fine prismatic structure parting to moderate very fine and fine subangular blocky; slightly hard, friable, moderately sticky, moderately plastic; common very fine and few fine roots; common very fine and few fine tubular pores; common faint and few distinct clay films on faces of peds and lining pores; 2 percent gravel; neutral (pH 7.1); gradual wavy boundary.

Bk1—21 to 29 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; common very fine roots; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; 2 percent gravel; slightly alkaline (pH 7.4); gradual wavy boundary.

Bk2—29 to 58 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; common very fine roots; common very fine and few fine tubular pores; disseminated carbonates; violently effervescent; 1 percent gravel; moderately alkaline (pH 7.9); gradual wavy boundary.

Bk3—58 to 60 inches; very pale brown (10YR 7/3) loam, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky, nonplastic; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 7.9).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—10 to 16 inches

Depth to an argillic horizon—8 to 19 inches

Depth to a calcic horizon—20 to 35 inches

## Soil Survey of Franklin County Area, Idaho

### *Ap horizon*

Hue—10YR  
Value—3 to 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—2 to 3 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—16 to 25 percent  
Content of rock fragments—0 to 12 percent gravel  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 6.6 to 8.4

### *Bt horizons*

Hue—10YR  
Value—5 or 6 dry, 3 or 4 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or clay loam  
Content of clay—28 to 35 percent  
Content of rock fragments—0 to 6 percent gravel  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 6.6 to 8.4

### *Bk horizons*

Hue—10YR  
Value—6 or 7 dry, 4 or 5 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—loam, fine sandy loam, or silt loam  
Content of clay—12 to 25 percent  
Content of rock fragments—0 to 6 percent gravel  
Calcium carbonate equivalent—5 to 25 percent  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 9.0

## **Thatcherflats Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Silty alluvium

*Slope:* 0 to 1 percent

*Elevation:* 4,700 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 80 to 90 days

**Taxonomic classification:** Fine-silty, mixed, frigid Typic Natrixeralfs

### **Typical Pedon**

Thatcherflats silt loam, in an area of Picabo-Thatcherflats complex, 0 to 1 percent slopes; about 1.5 miles north and 1.5 miles west of Banida, in Franklin County, Idaho;

## Soil Survey of Franklin County Area, Idaho

about 150 feet south and 500 feet east of the northwest corner of sec. 36, T. 13 S., R. 38 E.

- A—0 to 4 inches; light brownish gray (10YR 6/2) silt loam, grayish brown (10YR 5/2) moist; strong very thick platy structure parting to moderate thin platy; slightly hard, very friable, slightly sticky, slightly plastic; few very fine and fine and common medium and coarse roots; common very fine and few fine irregular pores; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.5); abrupt wavy boundary.
- Btn—4 to 16 inches; pale brown (10YR 6/3) silty clay loam, grayish brown (10YR 5/2) moist; strong medium and coarse columnar structure parting to moderate fine and medium angular blocky; hard, friable, moderately sticky, moderately plastic; common very fine, medium, and coarse and few fine roots; few very fine tubular pores; common medium prominent clay films on faces of peds and lining pores; disseminated carbonates; slightly effervescent; very strongly alkaline (pH 9.3); clear wavy boundary.
- Btkny—16 to 20 inches; light brownish gray (10YR 6/2) silty clay loam, gray (10YR 5/1) moist; moderate fine and medium prismatic structure parting to moderate fine angular blocky; hard, firm, moderately sticky, moderately plastic; few very fine and fine roots; common very fine tubular pores; very dark grayish brown (10YR 3/2) organic staining on the top and some vertical faces of peds; common medium prominent clay films on faces of peds and lining pores; common fine seams of granular gypsum; few fine irregularly shaped carbonate filaments and masses; strongly effervescent; strongly alkaline (pH 8.5); clear wavy boundary.
- Btkn—20 to 36 inches; gray (10YR 6/1) silty clay loam, dark gray (10YR 4/1) moist; weak medium prismatic structure parting to moderate fine and medium subangular blocky; hard, firm, moderately sticky, moderately plastic; few very fine roots; common very fine and few fine tubular pores; very dark grayish brown (10YR 3/2) organic staining on the top and some vertical faces of peds; common medium distinct clay films on faces of peds and lining pores; few fine irregularly shaped carbonate filaments and masses; strongly effervescent; strongly alkaline (pH 8.5); gradual irregular boundary.
- Bkn1—36 to 45 inches; very pale brown (10YR 7/3) silty clay loam, pale brown (10YR 6/3) moist; massive; hard, firm, moderately sticky, moderately plastic; few very fine roots; common very fine tubular pores; few fine distinct very dark gray (10YR 3/1) iron-manganese concretions; few fine distinct dark yellowish brown (10YR 4/6) irregularly shaped masses of iron accumulation; few fine irregularly shaped carbonate filaments and masses; strongly effervescent; strongly alkaline (pH 8.5); clear smooth boundary.
- Bkn2—45 to 61 inches; very pale brown (10YR 7/3) silty clay loam, light yellowish brown (10YR 6/4) moist; massive; hard, firm, moderately sticky, moderately plastic; common very fine tubular pores; few fine distinct very dark gray (10YR 3/1) zones of iron depletion and few fine distinct irregularly shaped yellowish brown (10YR 5/6) masses of iron accumulation; few fine irregularly shaped carbonate filaments; slightly effervescent; strongly alkaline (pH 8.5).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Depth to a natric horizon—2 to 7 inches

#### *Water features*

Seasonal high water table: Month(s)—March, April, May, June, and July; depth—3.0 to 4.0 feet

## Soil Survey of Franklin County Area, Idaho

Flooding: Month(s)—February, March, April, and May; frequency—rare

### *A horizon*

Hue—10YR  
Value—6 or 7 dry, 3 to 5 moist  
Chroma—2 or dry or moist  
Content of organic matter—1 to 3 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—11 to 18 percent  
Calcium carbonate equivalent—0 to 5 percent  
Sodium adsorption ratio—5 to 15  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 9.0

### *Btn horizon*

Hue—10YR  
Value—5 or 6 dry, 4 to 6 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay  
Content of clay—28 to 43 percent  
Calcium carbonate equivalent—0 to 5 percent  
Sodium adsorption ratio—20 to 30  
Electrical conductivity (mmhos/cm)—2 to 4  
Reaction—pH of 8.5 to 9.0

### *Btkny, Bknb, and Bkn horizons*

Hue—10YR  
Value—6 to 8 dry, 4 to 6 moist  
Chroma—1 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—25 to 35 percent  
Calcium carbonate equivalent—5 to 25 percent  
Content of gypsum—0 to 5 percent  
Sodium adsorption ratio—45 to 120  
Electrical conductivity (mmhos/cm)—4 to 8  
Reaction—pH of 8.5 to 9.0

## Toponce Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Hills and mountains

*Landform:* Hillslopes and mountain slopes

*Parent material:* Mixed alluvium

*Slope:* 6 to 30 percent

*Elevation:* 6,000 to 6,900 feet

*Mean annual precipitation:* 18 to 28 inches

*Mean annual air temperature:* 37 to 39 degrees F

*Frost-free period:* 30 to 50 days

**Taxonomic classification:** Fine, montmorillonitic Argic Vertic Cryoborolls

### Typical Pedon

Toponce silt loam, in an area of Toponce-Broadhead association, 6 to 30 percent slopes; about 2 miles northeast of Cottonwood Peak, in adjacent Bannock County, Idaho; about 300 feet north and 2,450 feet east of the southwest corner of sec. 29, T. 11 S., R. 39 E.

A1—0 to 3 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate fine granular structure; soft, friable, slightly sticky, slightly plastic; many very fine and fine roots; many very fine irregular pores; 10 percent gravel; slightly acid (pH 6.3); clear smooth boundary.

A2—3 to 14 inches; dark grayish brown (10YR 4/2) silty clay loam, very dark brown (10YR 2/2) moist; strong very fine, fine, and medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; many very fine and fine and few medium roots; many very fine tubular and irregular pores; 5 percent gravel; slightly acid (pH 6.3); clear smooth boundary.

Bt1—14 to 21 inches; brown (10YR 4/3) silty clay loam, very dark grayish brown (10YR 3/2) moist; strong very fine and fine subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine and fine and few medium roots; common very fine tubular and few irregular pores; few faint clay films on faces of peds and lining pores; 5 percent gravel; moderately acid (pH 5.8); clear smooth boundary.

Bt2—21 to 28 inches; brown (10YR 5/3) silty clay, dark yellowish brown (10YR 4/4) moist; moderate medium prismatic structure parting to strong medium angular blocky; very hard, very firm, moderately sticky, moderately plastic; common very fine and few fine and medium roots, mostly along faces of peds and in cracks; common very fine tubular pores; many distinct clay films on faces of peds and lining pores; 5 percent gravel; moderately acid (pH 5.8); clear smooth boundary.

Bt3—28 to 60 inches; brown (10YR 5/3) clay, dark yellowish brown (10YR 4/4) moist; moderate coarse prismatic structure; extremely hard, extremely firm, very sticky, very plastic; few very fine to medium roots along faces of peds and in cracks; common very fine tubular pores; many distinct clay films on faces of peds and lining pores; 2 percent gravel; moderately acid (pH 5.9).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—18 to 25 inches

Depth to an argillic horizon—8 to 18 inches

#### *A1 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—4 to 6 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—15 to 25 percent

Content of rock fragments—0 to 12 percent gravel

Reaction—pH of 5.6 to 6.5

#### *A2 horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Content of organic matter—2 to 4 percent

## Soil Survey of Franklin County Area, Idaho

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam  
Content of clay—20 to 30 percent  
Content of rock fragments—0 to 12 percent gravel  
Reaction—pH of 5.6 to 6.5

### *Bt horizons*

Hue—10YR  
Value—4 to 6 dry, 2 to 4 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam, silty clay, or clay  
Content of clay—35 to 60 percent  
Content of rock fragments—0 to 12 percent gravel  
Reaction—pH of 5.6 to 6.5

## Trenton Series

*Depth class:* Very deep  
*Drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Landscape:* Lake plains  
*Landform:* Lake terraces  
*Parent material:* Lacustrine deposits  
*Slope:* 0 to 2 percent  
*Elevation:* 4,400 to 4,800 feet  
*Mean annual precipitation:* 14 to 16 inches  
*Mean annual air temperature:* 46 to 49 degrees F  
*Frost-free period:* 120 to 130 days

**Taxonomic classification:** Fine, mixed, mesic Typic Natrixerolls

### Typical Pedon

Trenton silty clay loam, in an area of Trenton-Battle Creek complex, 0 to 2 percent slopes; about 4 miles south and 2 miles east of Preston, in Franklin County, Idaho; about 1,200 feet south and 1,700 feet east of the northwest corner of sec. 24, T. 16 S., R. 39 E.

Ap—0 to 8 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine granular structure; slightly hard, friable, moderately sticky, moderately plastic; few very fine and fine roots; few very fine and fine tubular pores; disseminated carbonates; slightly effervescent; slightly alkaline (pH 7.8); abrupt smooth boundary.

Btn1—8 to 12 inches; dark grayish brown (10YR 4/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine and fine roots; common very fine and fine tubular pores; few faint clay films on faces of peds; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

Btn2—12 to 21 inches; brown (10YR 5/3) silty clay, brown (10YR 4/3) moist; strong fine prismatic structure parting to strong fine subangular blocky; very hard, very firm, very sticky, very plastic; few very fine and fine roots; few very fine tubular pores; few prominent clay films on faces of peds and lining pores; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.8); clear wavy boundary.



## Soil Survey of Franklin County Area, Idaho

- Btkn**—21 to 32 inches; brown (7.5YR 5/4) silty clay, brown (7.5YR 4/2) moist; moderate medium and coarse subangular blocky structure; very hard, very firm, very sticky, very plastic; few very fine roots; few very fine tubular pores; common prominent clay films on faces of peds and few prominent clay films lining pores; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.6); clear wavy boundary.
- Bk**—32 to 46 inches; brown (7.5YR 5/4) silty clay, brown (7.5YR 4/4) moist; weak medium subangular blocky structure; very hard, very firm, very sticky, very plastic; few very fine tubular pores; common fine faint strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.6); clear smooth boundary.
- C**—46 to 61 inches; light brown (7.5YR 6/4) silty clay, brown (7.5YR 5/4) moist; massive; very hard, very firm, very sticky, very plastic; many medium prominent light gray (2.5Y 7/2) irregularly shaped zones of iron depletion and many medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation; disseminated carbonates; violently effervescent; strongly alkaline (pH 8.5).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 20 inches

Depth to a natric horizon—4 to 10 inches

#### *Water feature*

Seasonal high water table: Month(s)—March, April, May, June, July, and August;  
depth—2.5 to 3.5 feet

#### *Ap horizon*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—30 to 35 percent

Calcium carbonate equivalent—5 to 15 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

#### *Btn horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—2 to 3 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—30 to 35 percent

Calcium carbonate equivalent—5 to 15 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

#### *Btkn and Bk horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

## Soil Survey of Franklin County Area, Idaho

Content of organic matter—0.5 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay  
Content of clay—35 to 50 percent  
Calcium carbonate equivalent—5 to 25 percent  
Sodium adsorption ratio—13 to 45  
Electrical conductivity (mmhos/cm)—2 to 8  
Reaction—pH of 7.4 to 9.0

### *C horizon*

Hue—10YR or 7.5YR  
Value—5 to 7 dry, 4 to 6 moist  
Chroma—3 or 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay  
Content of clay—35 to 50 percent  
Calcium carbonate equivalent—15 to 35 percent  
Sodium adsorption ratio—5 to 12  
Electrical conductivity (mmhos/cm)—2 to 8  
Reaction—pH of 8.5 to 9.0

### **Taxadjunct Feature**

The Trenton soil in map unit 141 (Trenton-Battle Creek complex, cool, 0 to 2 percent slopes) is a taxadjunct to the series because it has a frigid soil temperature regime. This difference, however, does not affect the use and management of the soil.

## **Valmar Series**

*Depth class:* Moderately deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high  
*Landscape:* Mountains  
*Landform:* Mountain slopes  
*Parent material:* Mixed alluvium, colluvium, and residuum  
*Slope:* 20 to 60 percent  
*Elevation:* 5,200 to 6,700 feet  
*Mean annual precipitation:* 15 to 20 inches  
*Mean annual air temperature:* 40 to 43 degrees F  
*Frost-free period:* 60 to 90 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Typic Argixerolls

### **Typical Pedon**

Valmar very cobbly silt loam, in an area of Valmar-Camelback-Hades complex, 30 to 60 percent slopes; about 1.5 miles southwest of Pocatello, in adjacent Bannock County, Idaho; about 630 feet south and 2,055 feet east of the northwest corner of sec. 4, T. 7 S., R. 34 E.

A1—0 to 4 inches; brown (10YR 4/3) very cobbly silt loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky, slightly plastic; many very fine and few fine roots; many very fine irregular pores; 15 percent gravel, 20 percent cobbles, and 5 percent stones; neutral (pH 7.3); clear smooth boundary.

## Soil Survey of Franklin County Area, Idaho

- A2—4 to 9 inches; brown (10YR 5/3) very cobbly silt loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky, slightly plastic; many very fine and few fine roots; many very fine irregular pores; 20 percent gravel, 25 percent cobbles, and 5 percent stones; neutral (pH 7.3); clear smooth boundary.
- Bt—9 to 14 inches; yellowish brown (10YR 5/4) very cobbly silt loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine irregular and few very fine tubular pores; few faint clay films on faces of peds and lining pores; 20 percent gravel, 25 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.6); abrupt irregular boundary.
- BC—14 to 24 inches; yellowish brown (10YR 5/4) extremely stony silt loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine and fine roots; few very fine tubular pores; 5 percent gravel, 5 percent cobbles, and 75 percent stones; slightly alkaline (pH 7.7); abrupt irregular boundary.
- R—24 inches; quartzite.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—9 to 16 inches

Depth to an argillic horizon—7 to 22 inches

#### *A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—13 to 20 percent

Content of rock fragments—6 to 28 percent gravel, 17 to 25 percent cobbles, 0 to 6 percent stones

Reaction—pH of 6.1 to 7.3

#### *Bt horizon*

Hue—10YR

Value—4 to 6 dry, 2 to 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 27 percent

Content of rock fragments—2 to 22 percent gravel, 17 to 25 percent cobbles, 0 to 6 percent stones

Reaction—pH of 6.6 to 7.8

#### *BC horizon*

Hue—10YR

Value—4 to 6 dry, 2 to 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—20 to 27 percent

Content of rock fragments—0 to 24 percent gravel, 3 to 23 percent cobbles, 50 to 85 percent stones

Reaction—pH of 6.6 to 7.8

## Vitale Series

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills and mountains

*Landform:* Hillslopes and mountain slopes

*Parent material:* Mixed colluvium and residuum

*Slope:* 12 to 75 percent

*Elevation:* 5,100 to 7,300 feet

*Mean annual precipitation:* 15 to 30 inches

*Mean annual air temperature:* 40 to 46 degrees F

*Frost-free period:* 60 to 95 days

**Taxonomic classification:** Loamy-skeletal, mixed, frigid Typic Argixerolls

### Typical Pedon

Vitale extremely stony loam, in an area of Yeates Hollow-Vitale complex, 25 to 50 percent slopes; about 3.5 miles north of the town of Mink Creek, in Franklin County, Idaho; about 2,400 feet south and 1,500 feet east of the northwest corner of sec. 17, T. 13 S., R. 41 E.

- A1—0 to 1 inch; brown (10YR 5/3) extremely stony loam, very dark grayish brown (10YR 3/2) moist; strong thick platy structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine roots; many very fine vesicular pores; 15 percent gravel, 15 percent cobbles, and 35 percent stones; slightly alkaline (pH 7.5); abrupt wavy boundary.
- A2—1 to 5 inches; brown (10YR 5/3) extremely cobbly loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure parting to strong very fine granular; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; many very fine irregular and common very fine tubular pores; 15 percent gravel, 40 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.4); clear wavy boundary.
- AB—5 to 15 inches; brown (10YR 5/3) very cobbly loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure parting to strong very fine granular; slightly hard, friable, moderately sticky, moderately plastic; common very fine to medium roots; common very fine irregular and many very fine tubular pores; 20 percent gravel, 30 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.4); clear wavy boundary.
- Bt1—15 to 22 inches; light yellowish brown (10YR 6/4) extremely cobbly clay loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; hard, friable, moderately sticky, moderately plastic; common very fine to medium roots; many very fine tubular pores; common distinct clay films on faces of peds and lining pores; 20 percent gravel, 25 percent cobbles, and 20 percent stones; slightly alkaline (pH 7.4); clear wavy boundary.
- Bt2—22 to 26 inches; light yellowish brown (10YR 6/4) extremely stony clay loam, brown (10YR 4/3) moist; moderate medium and coarse subangular blocky structure; hard, friable, moderately sticky, moderately plastic; few very fine to medium roots; many very fine tubular pores; common distinct clay films on faces of peds and lining pores; 15 percent gravel, 20 percent cobbles, and 35 percent stones; slightly alkaline (pH 7.4); abrupt wavy boundary.
- R—26 inches; quartzite.

### Range in Characteristics

*Depth to a restrictive feature:* 20 to 40 inches to lithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Depth to an argillic horizon—3 to 15 inches

#### *A1 horizon*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—12 to 20 percent

Content of rock fragments—4 to 23 percent gravel, 6 to 20 percent cobbles, 11 to 38 percent stones

Reaction—pH of 6.6 to 7.8

#### *A2 and AB horizons*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 27 percent

Content of rock fragments—10 to 25 percent gravel, 20 to 41 percent cobbles, 3 to 31 percent stones

Reaction—pH of 6.6 to 7.8

#### *Bt horizons*

Hue—10YR or 7.5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—3 or 4 dry, 3 to 6 moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam or clay loam

Content of clay—25 to 35 percent

Content of rock fragments—0 to 24 percent gravel, 20 to 37 percent cobbles, 6 to 31 percent stones

Reaction—pH of 6.6 to 7.8

## Welby Series

*Depth class:* Very deep

*Drainage class:* Well drained or moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 0 to 4 percent

*Elevation:* 4,400 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 47 to 49 degrees F

*Frost-free period:* 110 to 130 days

**Taxonomic classification:** Coarse-silty, mixed, mesic Typic Calcixerolls

### Typical Pedon

Welby silt loam, wet, 0 to 2 percent slopes; about 0.5 mile south of Preston, in Franklin County, Idaho; about 2,650 feet south and 1,350 feet west of the northeast corner of sec. 27, T. 15 S., R. 39 E.

- Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam, very dark grayish brown (10YR 3/2) moist; strong thin platy structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and few fine roots; common fine tubular pores; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.4); clear smooth boundary.
- A—6 to 12 inches; dark grayish brown (10YR 4/2) silt loam, very dark grayish brown (10YR 3/2) moist; strong coarse subangular blocky structure; hard, friable, slightly sticky, slightly plastic; few fine roots; common fine tubular pores; disseminated carbonates; slightly effervescent; moderately alkaline (pH 8.4); gradual smooth boundary.
- Bk1—12 to 18 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; weak fine granular structure; hard, friable, slightly sticky, slightly plastic; common fine roots; few fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate seams and filaments; violently effervescent; moderately alkaline (pH 8.4); clear smooth boundary.
- Bk2—18 to 28 inches; very pale brown (10YR 7/4) silt loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few fine roots; few fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate seams and filaments; strongly effervescent; moderately alkaline (pH 8.4); gradual smooth boundary.
- Bk3—28 to 40 inches; very pale brown (10YR 7/4) loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; few fine roots; few fine tubular pores; disseminated carbonates; few fine irregularly shaped carbonate seams and filaments; strongly effervescent; strongly alkaline (pH 8.5); gradual smooth boundary.
- C—40 to 60 inches; light yellowish brown (10YR 6/4) fine sandy loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky, slightly plastic; disseminated carbonates; strongly effervescent; strongly alkaline (pH 8.5).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 19 inches

Depth to a calcic horizon—6 to 17 inches

#### *Water feature*

Seasonal high water table: Month(s)—January through December; depth—4.0 to 6.0 feet

#### *Ap and A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—8 to 18 percent

Calcium carbonate equivalent—1 to 20 percent

Sodium adsorption ratio—0 to 15

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

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### *Bk horizons*

Hue—10YR

Value—6 to 8 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam, loam, or very fine sandy loam

Content of clay—10 to 18 percent

Calcium carbonate equivalent—15 to 40 percent

Sodium adsorption ratio—0 to 20

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

### *C horizon*

Hue—10YR

Value—6 to 8 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—fine sandy loam or very fine sandy loam

Content of clay—5 to 18 percent

Calcium carbonate equivalent—10 to 35 percent

Sodium adsorption ratio—0 to 20

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

### **Remarks**

The Welby soil in map unit 148 (Welby silt loam, wet, 0 to 2 percent slopes) is moderately well drained and has an apparent water table. Thus, it is outside the range of the official series. This difference, however, does not significantly affect use and management of the soil for cropland.

## **Wheelon Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 4 to 60 percent

*Elevation:* 4,800 to 5,200 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 110 to 130 days

**Taxonomic classification:** Fine-silty, mixed, mesic Calcixerollic Xerochrepts

### **Typical Pedon**

Wheelon silt loam, in an area of Wheelon-Collinston complex, 4 to 12 percent slopes; about 1 mile north of Dayton, in Franklin County, Idaho; about 1,500 feet north and 1,800 feet east of the southwest corner of sec. 10, T. 15 S., R. 38 E.

Ap—0 to 6 inches; light brownish gray (10YR 6/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; slightly hard, very friable,



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moderately sticky, slightly plastic; many very fine and common fine roots; common very fine and fine tubular and irregular pores; disseminated carbonates (12 percent calcium carbonate equivalent); strongly effervescent; 1 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.

Bk1—6 to 17 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine and few fine roots; common very fine tubular pores; 10 percent very weakly cemented nodules 5 to 10 millimeters in size; disseminated carbonates (34 percent calcium carbonate equivalent); violently effervescent; 1 percent gravel; moderately alkaline (pH 8.0); gradual wavy boundary.

Bk2—17 to 33 inches; light gray (10YR 7/2) silt loam, olive (5Y 5/3) moist; moderate fine angular blocky structure; hard, friable, slightly sticky, slightly plastic; few very fine roots; common very fine and few fine tubular pores; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; 8 percent very weakly cemented nodules 5 to 10 millimeters in size; disseminated carbonates; common fine irregularly shaped carbonate masses and filaments (32 percent calcium carbonate equivalent); violently effervescent; 1 percent gravel; moderately alkaline (pH 8.2); gradual wavy boundary.

Bk3—33 to 53 inches; light gray (10YR 7/2) silt loam, olive (5Y 5/3) moist; moderate fine angular blocky structure; hard, friable, slightly sticky, slightly plastic; few very fine roots; common very fine and few fine tubular pores; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; 5 percent very weakly cemented nodules 5 to 10 millimeters in size; disseminated carbonates; common fine irregularly shaped carbonate masses and filaments (23 percent calcium carbonate equivalent); violently effervescent; 1 percent gravel; moderately alkaline (pH 8.2); gradual wavy boundary.

Bck—53 to 60 inches; light gray (10YR 7/2) silt loam, olive (5Y 5/3) moist; massive; hard, friable, slightly sticky, slightly plastic; few very fine and fine tubular pores; common fine prominent strong brown (7.5YR 5/6) masses of iron accumulation that are relict redoximorphic features; disseminated carbonates; common fine irregularly shaped carbonate masses and filaments (21 percent calcium carbonate equivalent); violently effervescent; 1 percent gravel; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Depth to a calcic horizon—4 to 16 inches

#### *Ap horizon*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 3 to 7 moist

Chroma—1 to 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 27 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—12 to 20 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

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### *Bk and BCk horizons*

Hue—10YR, 2.5Y, or 5Y

Value—7 or 8 dry, 5 to 7 moist

Chroma—2 or 3 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam or silty clay loam

Content of clay—24 to 34 percent

Content of rock fragments—0 to 3 percent gravel

Calcium carbonate equivalent—20 to 35 percent

Sodium adsorption ratio—0 to 15

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

## Windernot Series

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 2 percent

*Elevation:* 4,400 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 100 to 130 days

**Taxonomic classification:** Sandy-skeletal, mixed, mesic Pachic Calcixerolls

### Typical Pedon

Windernot gravelly sandy loam, in an area of Windernot-Lewnot-Stinkcreek complex, 0 to 2 percent slopes; about 2 miles northwest of Preston, in Franklin County, Idaho; about 1,900 feet north and 2,400 feet west of the southeast corner of sec. 17, T. 15 S., R. 39 E.

A1—0 to 6 inches; grayish brown (10YR 5/2) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and few fine roots; common very fine tubular and irregular pores; disseminated carbonates (8 percent calcium carbonate equivalent); violently effervescent; 25 percent gravel; strongly alkaline (pH 8.5); abrupt wavy boundary.

A2—6 to 18 inches; grayish brown (10YR 5/2) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and few fine tubular and irregular pores; disseminated carbonates (10 percent calcium carbonate equivalent); violently effervescent; 25 percent gravel; moderately alkaline (pH 8.4); abrupt wavy boundary.

Bk—18 to 23 inches; grayish brown (10YR 5/2) very gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine irregular and few fine tubular pores; disseminated carbonates (15 percent calcium carbonate equivalent); violently effervescent; 40 percent gravel; moderately alkaline (pH 8.4); clear wavy boundary.

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2Ck—23 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly sand, very dark grayish brown (10YR 3/2) moist; single grain; loose, nonsticky, nonplastic; common very fine and few fine roots; common very fine irregular and few very fine tubular pores; disseminated carbonates (10 percent calcium carbonate equivalent); strongly effervescent; 75 percent gravel; moderately alkaline (pH 8.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 35 inches

Depth to a calcic horizon—16 to 24 inches

#### *Water features*

Seasonal high water table: Month(s)—March, April, May, and June; depth—4.5 to 6.0 feet

Flooding: Month(s)—February, March, April, and May; frequency—rare

#### *A horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—sandy loam

Content of clay—5 to 15 percent

Content of rock fragments—9 to 37 percent gravel

Calcium carbonate equivalent—5 to 20 percent

Sodium adsorption ratio—0 to 2

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

#### *Bk horizon*

Hue—10YR

Value—5 to 7 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—sandy loam

Content of clay—5 to 15 percent

Content of rock fragments—23 to 45 percent gravel

Calcium carbonate equivalent—15 to 25 percent

Sodium adsorption ratio—0 to 2

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

#### *2Ck horizon*

Hue—10YR

Value—6 or 7 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—sand or loamy sand

Content of clay—1 to 5 percent

Content of rock fragments—26 to 85 percent gravel

Calcium carbonate equivalent—5 to 20 percent

Sodium adsorption ratio—0 to 2

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.9 to 9.0

## Winn Series

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Valleys

*Landform:* Stream terraces

*Parent material:* Mixed alluvium

*Slope:* 0 to 3 percent

*Elevation:* 5,100 to 5,200 feet

*Mean annual precipitation:* 15 to 17 inches

*Mean annual air temperature:* 45 to 46 degrees F

*Frost-free period:* 120 to 130 days

**Taxonomic classification:** Fine-loamy, mixed, mesic Cumulic Haploxerolls

### Typical Pedon

Winn silt loam, 0 to 3 percent slopes; about 2 miles northeast of Wellsville, in adjacent Cache County, Utah; about 1,500 feet north and 800 feet west of the southeast corner of sec. 23, T. 11 N., R. 1 W.

Ap—0 to 6 inches; dark gray (10YR 4/1) silt loam, very dark gray (10YR 3/1) moist; weak medium granular structure; slightly hard, friable, slightly sticky, slightly plastic; many fine and medium roots; few fine pores; strongly effervescent; slightly alkaline (pH 7.4); clear smooth boundary.

A1—6 to 13 inches; dark gray (10YR 4/1) loam, very dark gray (10YR 3/1) moist; weak medium subangular blocky structure; hard, friable, slightly sticky, slightly plastic; many fine and medium roots; common medium pores; slightly effervescent; slightly alkaline (pH 7.4); clear wavy boundary.

A2—13 to 18 inches; gray (2.5Y 5/1) loam, very dark gray (2.5Y 3/1) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many fine roots; common coarse pores; strongly effervescent; slightly alkaline (pH 7.4); clear smooth boundary.

A3—18 to 40 inches; grayish brown (10YR 5/2) loam, very dark gray (2.5Y 3/1) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few fine and coarse roots; common coarse pores; common fine distinct yellowish brown (10YR 5/8) irregularly shaped masses of iron accumulation; strongly effervescent; slightly alkaline (pH 7.7); clear smooth boundary.

C—40 to 60 inches; dark gray (2.5Y 4/1) silt loam, very dark gray (2.5Y 3/1) moist; massive; hard, friable, slightly sticky, slightly plastic; many fine and medium roots; common fine pores; many medium prominent yellowish brown (10YR 5/8) irregularly shaped masses of iron accumulation; slightly effervescent; slightly alkaline (pH 7.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### Diagnostic features

Thickness of the mollic epipedon—24 to 60 inches

Depth to redoximorphic features—more than 16 inches

#### Water features

Seasonal high water table: Month(s)—April, May, June, July, August, and September; depth—2.5 to 3.5 feet

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Flooding: Month(s)—February, March, April, and May; frequency—rare

### *Ap horizon*

Hue—10YR or N

Value—3 or 4 dry, 2 or 3 moist

Chroma—0 to 2 dry or moist

Content of organic matter—5 to 7 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—18 to 20 percent

Content of rock fragments—0 to 6 percent gravel

Calcium carbonate equivalent—1 to 10 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

### *A1 horizon*

Hue—10YR or N

Value—3 or 4 dry, 2 or 3 moist

Chroma—0 to 2 dry or moist

Content of organic matter—3 to 5 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—18 to 25 percent

Content of rock fragments—0 to 6 percent gravel

Calcium carbonate equivalent—1 to 10 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

### *A2, A3, and C horizons*

Hue—10YR, 2.5Y, or N

Value—4 to 6 dry, 2 to 4 moist

Chroma—0 to 2 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam, silt loam, or very fine sandy loam

Content of clay—18 to 20 percent

Content of rock fragments—0 to 6 percent gravel

Calcium carbonate equivalent—1 to 10 percent

Electrical conductivity (mmhos/cm)—0 to 2

Reaction—pH of 7.4 to 8.4

## **Winwell Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Lake plains

*Landform:* Lake terraces

*Parent material:* Lacustrine deposits

*Slope:* 0 to 8 percent

*Elevation:* 4,500 to 5,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 115 to 130 days

**Taxonomic classification:** Fine, mixed, mesic Calcic Pachic Argixerolls

### Typical Pedon

Winwell silty clay loam, in an area of Winwell-Collinston complex, 2 to 8 percent slopes; about 1 mile north of Dayton, in Franklin County, Idaho; about 1,550 feet north and 1,000 feet east of the southwest corner of sec. 10, T. 15 S., R. 38 E.

Ap1—0 to 3 inches; gray (10YR 5/1) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky, slightly plastic; common fine and few medium and coarse roots; common very fine and fine and few medium tubular pores; slightly alkaline (pH 7.8); abrupt smooth boundary.

Ap2—3 to 10 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; hard, very friable, slightly sticky, slightly plastic; few very fine to medium roots; common very fine and fine tubular pores; moderately alkaline (pH 8.1); abrupt smooth boundary.

Bt1—10 to 15 inches; grayish brown (10YR 5/2) silty clay, very dark grayish brown (10YR 3/2) moist; strong fine subangular blocky structure; very hard, friable, moderately sticky, moderately plastic; few very fine roots; few very fine and fine tubular pores; common distinct clay films on faces of peds; moderately alkaline (pH 7.9); clear smooth boundary.

Bt2—15 to 22 inches; dark grayish brown (10YR 4/2) silty clay, very dark grayish brown (10YR 3/2) moist; strong coarse prismatic structure; very hard, friable, moderately sticky, moderately plastic; common fine roots; common fine tubular pores; many prominent clay films on faces of peds and lining pores; moderately alkaline (pH 7.9); abrupt wavy boundary.

Btk—22 to 30 inches; very pale brown (10YR 7/3) silty clay, light yellowish brown (2.5Y 6/4) moist; strong medium subangular blocky structure; very hard, friable, moderately sticky, moderately plastic; few very fine roots; common fine tubular pores; many distinct clay films on faces of peds and lining pores; disseminated carbonates; violently effervescent (9 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); clear wavy boundary.

Bk—30 to 51 inches; very pale brown (10YR 8/2) silty clay loam, light gray (2.5Y 7/2) moist; moderate fine subangular blocky structure; very hard, friable, slightly sticky, slightly plastic; common fine tubular pores; common fine irregularly shaped carbonate masses and seams; violently effervescent (38 percent calcium carbonate equivalent); strongly alkaline (pH 8.6); gradual smooth boundary.

C—51 to 60 inches; very pale brown (10YR 8/2) silt loam, light olive brown (2.5Y 5/4) moist; massive; hard, friable, slightly sticky, slightly plastic; few fine tubular pores; few fine irregularly shaped carbonate filaments; violently effervescent (26 percent calcium carbonate equivalent); strongly alkaline (pH 8.8).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—20 to 30 inches

Depth to an argillic horizon—8 to 12 inches

Depth to a calcic horizon—25 to 40 inches

#### *Ap horizons*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry, 2 or 3 moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

## Soil Survey of Franklin County Area, Idaho

Content of clay—27 to 32 percent  
Sodium adsorption ratio—0 to 2  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 8.4

### *Bt horizons*

Hue—10YR  
Value—4 or 5 dry, 2 or 3 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—1 to 2 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam or silty clay  
Content of clay—38 to 50 percent  
Sodium adsorption ratio—0 to 2  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 8.4

### *Btk horizon*

Hue—10YR or 2.5Y  
Value—5 to 7 dry, 5 or 6 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.5 to 1 percent  
Texture of the fraction less than 2 millimeters in size—silty clay  
Content of clay—40 to 50 percent  
Calcium carbonate equivalent—1 to 15 percent  
Sodium adsorption ratio—0 to 2  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.9 to 8.4

### *Bk horizon*

Hue—10YR or 2.5Y  
Value—6 to 8 dry, 5 to 7 moist  
Chroma—2 or 3 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silty clay loam  
Content of clay—27 to 35 percent  
Calcium carbonate equivalent—20 to 40 percent  
Sodium adsorption ratio—1 to 8  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 8.5 to 9.0

### *C horizon*

Hue—10YR or 2.5Y  
Value—7 or 8 dry, 5 to 7 moist  
Chroma—2 to 4 dry or moist  
Content of organic matter—0.0 to 0.5 percent  
Texture of the fraction less than 2 millimeters in size—silt loam  
Content of clay—18 to 26 percent  
Calcium carbonate equivalent—15 to 35 percent  
Sodium adsorption ratio—1 to 8  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 8.5 to 9.0

## **Wormcreek Series**

*Depth class:* Deep

*Drainage class:* Well drained



## Soil Survey of Franklin County Area, Idaho

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Volcanic ash, alluvium, colluvium, and residuum derived from tuff

*Slope:* 15 to 60 percent

*Elevation:* 4,800 to 6,500 feet

*Mean annual precipitation:* 13 to 18 inches

*Mean annual air temperature:* 43 to 47 degrees F

*Frost-free period:* 70 to 110 days

**Taxonomic classification:** Ashy-skeletal, frigid Vitrandic Calcixerolls

### Typical Pedon

Wormcreek gravelly clay loam, in an area of Wormcreek-Lonigan complex, 15 to 55 percent slopes; about 5 miles east and 4 miles north of Preston, in Franklin County, Idaho; about 2,000 feet south and 500 feet east of the northwest corner of sec. 33, T. 14 S., R. 40 E.

- A1—0 to 4 inches; dark grayish brown (10YR 4/2) gravelly clay loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; many very fine irregular and many very fine tubular pores; disseminated carbonates (1 percent calcium carbonate equivalent); slightly effervescent; 25 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.8); clear smooth boundary.
- A2—4 to 9 inches; grayish brown (10YR 5/2) gravelly clay loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine and few medium tubular pores; disseminated carbonates (3 percent calcium carbonate equivalent); slightly effervescent; 25 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.1); clear smooth boundary.
- Bk1—9 to 15 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, brown (7.5YR 5/4) moist; moderate fine and medium angular blocky structure; hard, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine and common medium tubular pores; disseminated carbonates (23 percent calcium carbonate equivalent); strongly effervescent; 35 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.3); clear wavy boundary.
- Bk2—15 to 22 inches; very pale brown (10YR 8/2) very cobbly clay loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, slightly sticky, slightly plastic; many very fine, common fine, and few medium roots; many very fine and fine irregular pores; thin patchy carbonate coatings on the bottom of rock fragments (31 percent calcium carbonate equivalent); violently effervescent; 25 percent gravel and 25 percent cobbles; moderately alkaline (pH 8.3); clear wavy boundary.
- Bk3—22 to 31 inches; very pale brown (10YR 8/2) very cobbly loam, very pale brown (10YR 7/4) moist; massive; soft, very friable, slightly sticky, slightly plastic; few very fine to medium roots; many very fine and fine irregular pores; many thick carbonate coatings on the bottom of rock fragments (30 percent calcium carbonate equivalent); violently effervescent; 25 percent gravel and 30 percent cobbles; moderately alkaline (pH 8.3); clear wavy boundary.
- Bk4—31 to 41 inches; very pale brown (10YR 8/3) extremely cobbly loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, slightly sticky, slightly plastic; few very fine to medium roots; many very fine and fine irregular pores; disseminated carbonates (27 percent calcium carbonate equivalent);

## Soil Survey of Franklin County Area, Idaho

strongly effervescent; 25 percent gravel, 40 percent cobbles, and 5 percent stones; strongly alkaline (pH 8.5); clear wavy boundary.

BC—41 to 48 inches; very pale brown (10YR 8/3) extremely cobbly loam, brownish yellow (10YR 6/6) moist; massive; soft, very friable, slightly sticky, slightly plastic; few very fine to medium roots; many very fine and fine irregular pores; disseminated carbonates (17 percent calcium carbonate equivalent); strongly effervescent; 30 percent gravel, 35 percent cobbles, and 5 percent stones; strongly alkaline (pH 8.9); clear smooth boundary.

Cr—48 inches; tuff.

### Range in Characteristics

*Depth to a restrictive feature:* 40 to 60 inches to paralithic bedrock

#### *Diagnostic features*

Thickness of the mollic epipedon—7 to 16 inches

Depth to a calcic horizon—7 to 16 inches

Content of volcanic glass—50 to 65 percent

#### *A horizons*

Hue—10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—clay loam

Content of clay—27 to 35 percent

Content of rock fragments—10 to 38 percent gravel, 3 to 6 percent cobbles

Calcium carbonate equivalent—1 to 5 percent

Reaction—pH of 7.4 to 8.4

Bulk density—1.10 to 1.30

Oxalate-extractable Al plus one-half Fe—0.14 to 0.17 percent

Phosphorus retention—15 to 25 percent

15-bar water retention, dry—15 to 25 percent

#### *Bk1 and Bk2 horizons*

Hue—10YR or 7.5YR

Value—5 to 8 dry, 5 to 7 moist

Chroma—2 to 6 dry or moist

Content of organic matter—1 to 3 percent

Texture of the fraction less than 2 millimeters in size—clay loam

Content of clay—27 to 35 percent

Content of rock fragments—11 to 41 percent gravel, 9 to 25 percent cobbles

Calcium carbonate equivalent—20 to 35 percent

Reaction—pH of 7.9 to 8.4

Bulk density—1.00 to 1.20

Oxalate-extractable Al plus one-half Fe—0.04 to 0.12 percent

Phosphorus retention—30 to 80 percent

15-bar water retention, dry—10 to 25 percent

#### *Bk3, Bk4, and BC horizons*

Hue—10YR or 7.5YR

Value—5 to 8 dry, 5 to 7 moist

Chroma—2 to 6 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—14 to 18 percent

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Content of rock fragments—7 to 35 percent gravel, 25 to 44 percent cobbles, 0 to 6 percent stones  
Calcium carbonate equivalent—15 to 30 percent  
Reaction—pH of 7.9 to 9.0  
Bulk density—1.00 to 1.20  
Oxalate-extractable Al plus one-half Fe—0.04 to 0.12 percent  
Phosphorus retention—30 to 80 percent  
15-bar water retention, dry—10 to 25 percent

### Wursten Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills and lake plains

*Landform:* Hillslopes and lake terraces

*Parent material:* Mixed alluvium

*Slope:* 4 to 30 percent

*Elevation:* 4,600 to 5,500 feet

*Mean annual precipitation:* 14 to 18 inches

*Mean annual air temperature:* 42 to 45 degrees F

*Frost-free period:* 70 to 100 days

**Taxonomic classification:** Coarse-loamy, mixed, frigid Typic Calcixerolls

#### Typical Pedon

Wursten loam, in an area of Huffman-Wursten complex, 4 to 12 percent slopes; about 2 miles northwest of Weston, in Franklin County, Idaho; about 1,800 feet south and 1,850 feet west of the northeast corner of sec. 30, T. 15 S., R. 38 E.

- A—0 to 5 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine roots; common very fine tubular and irregular pores; disseminated carbonates; strongly effervescent; 5 percent gravel; moderately alkaline (pH 7.9); clear wavy boundary.
- Bk1—5 to 17 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and fine roots; common very fine and few fine tubular and irregular pores; common fine irregularly shaped carbonate filaments; strongly effervescent; 10 percent gravel; moderately alkaline (pH 8.2); clear wavy boundary.
- Bk2—17 to 19 inches; light brownish gray (10YR 6/2) loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; many very fine and common fine roots; common very fine and fine tubular and irregular pores; common fine irregularly shaped carbonate filaments; strongly effervescent; 10 percent gravel; moderately alkaline (pH 8.2); gradual wavy boundary.
- Bk3—19 to 31 inches; pale brown (10YR 6/3) loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine roots; common very fine and fine tubular and irregular pores; few fine irregularly shaped carbonate filaments; strongly effervescent; 10 percent gravel; moderately alkaline (pH 8.4); gradual wavy boundary.
- Bk4—31 to 60 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; massive; hard, very friable, nonsticky, nonplastic; common very fine and fine

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roots; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; 15 percent gravel; strongly alkaline (pH 8.6).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—8 to 18 inches

Depth to a calcic horizon—4 to 18 inches

#### *A horizon*

Hue—10YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—12 to 17 percent

Content of rock fragments—0 to 12 percent gravel

Calcium carbonate equivalent—5 to 15 percent

Reaction—pH of 7.4 to 8.4

#### *Bk1 horizon*

Hue—10YR

Value—5 to 8 dry, 3 to 7 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—12 to 20 percent

Content of rock fragments—0 to 12 percent gravel

Calcium carbonate equivalent—15 to 30 percent

Reaction—pH of 7.9 to 8.4

#### *Bk2 and Bk3 horizons*

Hue—10YR

Value—5 to 8 dry, 3 to 7 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—12 to 16 percent

Content of rock fragments—0 to 12 percent gravel

Calcium carbonate equivalent—15 to 30 percent

Sodium adsorption ratio—0 to 8

Reaction—pH of 7.9 to 9.0

#### *Bk4 horizon*

Hue—10YR

Value—5 to 8 dry, 3 to 7 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—loam or fine sandy loam

Content of clay—10 to 16 percent

Content of rock fragments—5 to 40 percent gravel, 0 to 3 percent cobbles

Calcium carbonate equivalent—10 to 30 percent

Sodium adsorption ratio—5 to 13

Reaction—pH of 7.9 to 9.0

## Xerochrepts

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Mountains

*Landform:* Mountain slopes

*Parent material:* Mixed colluvium and residuum

*Slope:* 20 to 40 percent

*Elevation:* 4,800 to 5,900 feet

*Mean annual precipitation:* 13 to 16 inches

*Mean annual air temperature:* 43 to 47 degrees F

*Frost-free period:* 80 to 110 days

**Taxonomic classification:** Xerochrepts

### Typical Pedon

Xerochrepts silt loam, in an area of Xerochrepts-Wormcreek-Xerorthents complex, 20 to 70 percent slopes; about 2 miles northwest of Dayton, in Franklin County, Idaho; about 2,250 feet south and 100 feet east of the northwest corner of sec. 10, T. 15 S., R. 38 E.

- A1—0 to 3 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- A2—3 to 8 inches; grayish brown (10YR 5/2) silt loam, dark grayish brown (10YR 4/2) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; disseminated carbonates; strongly effervescent; 2 percent gravel; moderately alkaline (pH 8.0); clear wavy boundary.
- BA—8 to 14 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine, common fine, and few medium and coarse roots; many very fine and few fine tubular pores; disseminated carbonates; strongly effervescent; 20 percent weakly cemented cicada nodules; 2 percent gravel; moderately alkaline (pH 8.2); gradual wavy boundary.
- Bw—14 to 26 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and few fine tubular pores; disseminated carbonates; strongly effervescent; 20 percent weakly cemented cicada nodules; 5 percent gravel; moderately alkaline (pH 8.2); clear wavy boundary.
- Bk—26 to 46 inches; white (5Y 8/1) silt loam, pale olive (5Y 6/3) moist; massive; slightly hard, friable, slightly sticky, slightly plastic; few very fine to coarse roots; common very fine tubular pores; few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation that are relict redoximorphic features; many fine irregularly shaped carbonate filaments and masses; violently effervescent; 5 percent gravel; moderately alkaline (pH 8.2); gradual wavy boundary.
- BCK—46 to 60 inches; white (5Y 8/1) silt loam, pale olive (5Y 6/3) moist; massive; slightly hard, friable, slightly sticky, slightly plastic; few very fine to coarse roots; common very fine tubular pores; few fine prominent yellowish brown (10YR 5/6)

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masses of iron accumulation that are relict redoximorphic features; common fine and medium irregularly shaped carbonate filaments and masses; violently effervescent; moderately alkaline (pH 8.2).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic feature*

Depth to horizons with secondary carbonates—20 to 30 inches

#### *A horizons*

Hue—10YR

Value—5 to 7 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—14 to 25 percent

Content of rock fragments—0 to 45 percent gravel

Calcium carbonate equivalent—1 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

#### *BA and Bw horizons*

Hue—10YR or 2.5Y

Value—5 to 8 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—silt loam, loam, or clay loam

Content of clay—10 to 30 percent

Content of rock fragments—0 to 59 percent gravel

Calcium carbonate equivalent—1 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

#### *Bk and BCk horizons*

Hue—10YR, 2.5Y, or 5Y

Value—5 to 8 dry, 4 to 6 moist

Chroma—1 to 3 dry or moist

Content of organic matter—0.0 to 0.5 percent

Texture of the fraction less than 2 millimeters in size—silt loam or loam

Content of clay—10 to 27 percent

Content of rock fragments—0 to 59 percent gravel

Calcium carbonate equivalent—1 to 40 percent

Sodium adsorption ratio—0 to 5

Reaction—pH of 7.9 to 9.0

## Xerorthents

*Depth class:* Shallow to deep

*Drainage class:* Somewhat excessively drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high

*Landscape:* Hills, lake plains, mountains, and valleys

*Landform:* Hillslopes, lake terraces, and mountain slopes



## Soil Survey of Franklin County Area, Idaho

*Parent material:* Mixed colluvium and residuum

*Slope:* 30 to 70 percent

*Elevation:* 4,500 to 5,900 feet

*Mean annual precipitation:* 13 to 17 inches

*Mean annual air temperature:* 41 to 48 degrees F

*Frost-free period:* 80 to 130 days

**Taxonomic classification:** Xerorthents

### Typical Pedon

Xerorthents gravelly loam, in an area of Xerochrepts-Wormcreek-Xerorthents complex, 20 to 70 percent slopes; about 3.5 miles northwest of Weston, in Franklin County, Idaho; about 400 feet north and 1,500 feet east of the southwest corner of sec. 29, T. 15 S., R. 38 E.

A—0 to 3 inches; light brownish gray (2.5Y 6/2) gravelly loam, grayish brown (2.5Y 5/2) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine and fine tubular pores; disseminated carbonates (15 percent calcium carbonate equivalent); violently effervescent; 15 percent gravel and 10 percent channers; moderately alkaline (pH 8.2); clear smooth boundary.

C1—3 to 8 inches; light brownish gray (2.5Y 6/2) very channery loam, grayish brown (2.5Y 5/2) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common very fine and few fine roots; common very fine tubular pores; disseminated carbonates (14 percent calcium carbonate equivalent); violently effervescent; 15 percent gravel and 40 percent channers; moderately alkaline (pH 8.2); clear smooth boundary.

C2—8 to 11 inches; light brownish gray (2.5Y 6/2) extremely channery loam, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, moderately sticky, slightly plastic; few very fine and common coarse roots; few very fine tubular pores; disseminated carbonates (11 percent calcium carbonate equivalent); strongly effervescent; 85 percent channers; moderately alkaline (pH 8.2); clear smooth boundary.

Cr—11 inches; calcareous siltstone.

### Range in Characteristics

*Depth to a restrictive feature:* 10 to 60 inches to paralithic bedrock

#### *Diagnostic feature*

Thickness of the ochric epipedon—1 to 6 inches

#### *A horizon*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 4 to 6 moist

Chroma—1 to 3 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—10 to 25 percent

Content of rock fragments—3 to 45 percent gravel, 0 to 20 percent channers

Calcium carbonate equivalent—1 to 40 percent

Reaction—pH of 7.4 to 9.0

#### *C horizons*

Hue—10YR or 2.5Y

Value—6 or 7 dry, 4 to 6 moist

Chroma—1 to 3 dry or moist



Content of organic matter—0.0 to 1 percent  
Texture of the fraction less than 2 millimeters in size—loam  
Content of clay—10 to 25 percent  
Content of rock fragments—0 to 70 percent gravel, 35 to 85 percent channers  
Calcium carbonate equivalent—1 to 40 percent  
Sodium adsorption ratio—0 to 3  
Electrical conductivity (mmhos/cm)—0 to 2  
Reaction—pH of 7.4 to 9.0

## Yago Series

*Depth class:* Very deep  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low  
*Landscape:* Mountains  
*Landform:* Mountain slopes  
*Parent material:* Mixed alluvium and colluvium  
*Slope:* 4 to 20 percent  
*Elevation:* 5,760 to 6,700 feet  
*Mean annual precipitation:* 18 to 22 inches  
*Mean annual air temperature:* 41 to 44 degrees F  
*Frost-free period:* 60 to 80 days

**Taxonomic classification:** Clayey-skeletal, montmorillonitic, frigid Typic Argixerolls

### Typical Pedon

Yago extremely stony silty clay loam, in an area of Broadhead-Yago complex, 12 to 20 percent slopes; about 3 miles northeast of Lava Hot Springs, in adjacent Bannock County, Idaho; about 860 feet south and 900 feet west of the northeast corner of sec. 24, T. 9 S., R. 38 E.

A—0 to 10 inches; dark grayish brown (10YR 4/2) extremely stony silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine to medium and few coarse roots; many very fine irregular pores along the faces of peds and common very fine and fine tubular pores; 10 percent gravel, 30 percent cobbles, and 20 percent stones; slightly acid (pH 6.5); abrupt irregular boundary.

Bt1—10 to 16 inches; brown (7.5YR 5/4) extremely stony clay loam, brown (7.5YR 4/4) moist; moderate fine and medium angular blocky structure; very hard, very firm, very sticky, very plastic; common very fine and fine roots; common very fine irregular pores along the faces of peds and common very fine and fine tubular pores; 10 percent gravel, 20 percent cobbles, and 30 percent stones; slightly acid (pH 6.5); gradual irregular boundary.

Bt2—16 to 37 inches; brown (7.5YR 5/4) extremely stony clay loam, brown (7.5YR 4/4) moist; moderate medium and coarse angular blocky structure; extremely hard, very firm, very sticky, very plastic; common very fine and few fine roots; common very fine irregular pores along the faces of peds and few very fine tubular pores; many distinct clay films on faces of peds and lining pores; 10 percent gravel, 20 percent cobbles, and 30 percent stones; neutral (pH 6.7); abrupt irregular boundary.

Btk—37 to 45 inches; light brown (7.5YR 6/4) extremely stony clay loam, brown (7.5YR 5/4) moist; moderate medium and coarse angular blocky structure;

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extremely hard, very firm, very sticky, very plastic; common very fine roots; common very fine irregular pores along the faces of peds and few very fine tubular pores; common distinct clay films on faces of peds and lining pores; common thin carbonate coatings on faces of peds; 10 percent gravel, 20 percent cobbles, and 30 percent stones; neutral (pH 7.2); clear wavy boundary.

Bk—45 to 60 inches; reddish yellow (7.5YR 6/6) extremely stony silty clay loam, strong brown (7.5YR 5/6) moist; massive; slightly hard, friable, moderately sticky, slightly plastic; few very fine and fine roots; few very fine tubular pores; many fine rounded iron and manganese concretions; strongly effervescent; 10 percent gravel, 20 percent cobbles, and 30 percent stones; slightly alkaline (pH 7.4).

### Range in Characteristics

*Depth to a restrictive feature:* More than 60 inches

#### *Diagnostic features*

Thickness of the mollic epipedon—10 to 20 inches

Depth to an argillic horizon—8 to 14 inches

Depth to secondary carbonates—more than 36 inches

#### *A horizon*

Hue—10YR or 7.5YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam

Content of clay—27 to 35 percent

Content of rock fragments—2 to 15 percent gravel, 14 to 40 percent cobbles, 14 to 25 percent stones

Reaction—pH of 5.6 to 6.5

#### *Bt horizons*

Hue—7.5YR or 5YR

Value—4 to 6 dry, 3 or 4 moist

Chroma—4 to 6 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—clay loam, silty clay loam, clay

Content of clay—35 to 50 percent

Content of rock fragments—4 to 19 percent gravel, 9 to 23 percent cobbles, 17 to 33 percent stones

Calcium carbonate equivalent—0 to 5 percent

Reaction—pH of 6.1 to 7.3

#### *Btk and Bk horizons*

Hue—7.5YR or 5YR

Value—4 to 6 dry or moist

Chroma—4 to 6 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—silty clay loam or clay loam

Content of clay—27 to 35 percent

Content of rock fragments—4 to 19 percent gravel, 9 to 23 percent cobbles, 17 to 33 percent stones

Calcium carbonate equivalent—1 to 10 percent

Sodium adsorption ratio—0 to 2

Reaction—pH of 6.6 to 7.8

## Yeates Hollow Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low

*Landscape:* Hills and mountains

*Landform:* Hillslopes and mountain slopes

*Parent material:* Mixed alluvium, colluvium, and residuum

*Slope:* 6 to 50 percent

*Elevation:* 5,000 to 6,600 feet

*Mean annual precipitation:* 16 to 30 inches

*Mean annual air temperature:* 40 to 45 degrees F

*Frost-free period:* 60 to 90 days

**Taxonomic classification:** Clayey-skeletal, montmorillonitic, frigid Typic Argixerolls

### Typical Pedon

Yeates Hollow cobbly silt loam, in an area of Yeates Hollow-Manila-Softback complex, 12 to 40 percent slopes; about 4 miles west and 4 miles south of Thatcher, in Franklin County, Idaho; about 1,200 feet south and 2,600 feet east of the northwest corner of sec. 28, T. 12 S., R. 40 E.

- A—0 to 8 inches; dark grayish brown (10YR 4/2) cobbly silt loam, very dark grayish brown (10YR 3/2) moist; weak very fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; many very fine and common fine to coarse roots; many very fine irregular and common very fine tubular pores; 10 percent gravel and 10 percent cobbles; neutral (pH 7.0); abrupt smooth boundary.
- BA—8 to 16 inches; dark grayish brown (10YR 4/2) extremely cobbly loam, dark brown (7.5YR 3/2) moist; moderate very fine, fine, and medium subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; common very fine and few fine to coarse roots; common very fine and few fine tubular pores; 15 percent gravel, 35 percent cobbles, and 15 percent stones; slightly acid (pH 6.5); clear wavy boundary.
- Bt1—16 to 19 inches; brown (7.5YR 4/2) extremely cobbly clay loam, dark brown (7.5YR 3/2) moist; moderate very fine, fine, and medium angular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine and few fine to coarse roots; common very fine tubular pores; common distinct clay films on faces of peds and lining pores; 15 percent gravel, 30 percent cobbles, and 15 percent stones; slightly acid (pH 6.5); abrupt wavy boundary.
- Bt2—19 to 29 inches; brown (7.5YR 5/4) very cobbly clay, brown (7.5YR 4/4) moist; strong fine, medium, and coarse angular blocky structure; very hard, firm, very sticky, very plastic; few very fine to coarse roots; common very fine tubular pores; many prominent clay films on faces of peds and lining pores; common fine faint strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation that are relict redoximorphic features; common distinct manganese concretions; 15 percent gravel, 15 percent cobbles, and 5 percent stones; slightly acid (pH 6.2); abrupt wavy boundary.
- Bt3—29 to 60 inches; light brown (7.5YR 6/4) very gravelly clay loam, brown (7.5YR 4/4) moist; moderate fine, medium, and coarse subangular blocky structure; hard, firm, moderately sticky, moderately plastic; few very fine to medium roots; common very fine irregular and tubular pores; common distinct clay films on faces of peds and lining pores; common fine and medium distinct reddish yellow (7.5YR 6/8) irregularly shaped masses of iron accumulation that are relict redoximorphic features; 30 percent gravel and 15 percent cobbles; slightly acid (pH 6.1).

**Range in Characteristics**

*Depth to a restrictive feature:* More than 60 inches

*Diagnostic features*

Thickness of the mollic epipedon—11 to 19 inches

Depth to an argillic horizon—8 to 16 inches

*A horizon*

Hue—10YR or 7.5YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—2 to 4 percent

Texture of the fraction less than 2 millimeters in size—silt loam

Content of clay—16 to 20 percent

Content of rock fragments—2 to 16 percent gravel, 9 to 20 percent cobbles

Reaction—pH of 6.6 to 7.3

*BA horizon*

Hue—10YR or 7.5YR

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—loam

Content of clay—20 to 27 percent

Content of rock fragments—2 to 17 percent gravel, 34 to 40 percent cobbles, 6 to 15 percent stones

Reaction—pH of 6.1 to 7.3

*Bt1 horizon*

Hue—10YR or 7.5YR

Value—4 to 7 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—1 to 2 percent

Texture of the fraction less than 2 millimeters in size—clay loam

Content of clay—28 to 35 percent

Content of rock fragments—0 to 28 percent gravel, 23 to 34 percent cobbles, 6 to 31 percent stones

Reaction—pH of 6.1 to 7.3

*Bt2 horizon*

Hue—10YR or 7.5YR

Value—4 to 7 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.5 to 1 percent

Texture of the fraction less than 2 millimeters in size—clay loam or clay

Content of clay—35 to 50 percent

Content of rock fragments—1 to 17 percent gravel, 13 to 37 percent cobbles, 0 to 11 percent stones

Reaction—pH of 6.1 to 7.3

*Bt3 horizon*

Hue—10YR or 7.5YR

Value—4 to 7 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Content of organic matter—0.0 to 1 percent

Texture of the fraction less than 2 millimeters in size—clay loam or clay

Content of clay—35 to 50 percent

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Content of rock fragments—0 to 52 percent gravel, 6 to 17 percent cobbles

Reaction—pH of 6.1 to 7.3

### Remarks

The Yeates Hollow soils in this survey area are very deep and are thus outside the depth range of the official series. This difference, however, does not significantly affect use and management of the soils for rangeland.



# Formation of the Soils

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Shawn McVey, soil scientist, and Terril Kay Stevenson, geologist, Natural Resources Conservation Service, helped prepare this section.

This section defines soil and relates the factors of soil formation to the soils in this survey area.

Soil is a natural body, or a collection of natural bodies, on the earth's surface that contains living matter and supports or is capable of supporting plants. Its upper limit is air or shallow water. At its margins, soil grades to deep water or to areas of bare rock. At its lower limit, it grades to bedrock or to earthy materials virtually devoid of roots, animals, or marks of other biologic activity (USDA, 1975; Soil Survey Staff, 1994). Soil is a dynamic medium forming a living shell of varying thickness over the rocky crust of the earth.

Soil is the result of the interaction of five soil-forming factors (Birkeland, 1984; Jenny, 1941). These factors determine the unique properties and characteristics of a soil at any given location. The five soil-forming factors are: (1) the type and mineralogical composition of the parent material; (2) the different climates that the soil has been exposed to; (3) the living organisms on and in the soil; (4) the relief, or lay of the land; and (5) the length of time that these development forces have acted upon the soil. The interrelationship of these factors is very complex, and it is difficult to isolate the effects of any one factor. Also, the effect of the factors varies from place to place. The interaction of the factors ultimately determines the kind of soil that forms. The term "pedogenesis" (soil genesis) commonly refers to the process of soil formation.

## Parent Material

The dominant kinds of parent material in the survey area are alluvium and lacustrine deposits influenced by loess. Of lesser extent are sandy eolian material, residuum, and colluvium. All of the parent materials are derived from various geologic deposits and bedrock formations.

The most recent deposits are alluvium and eolian fine sands in the Quaternary Silt of the Lake Bonneville Group (Piper, 1924). Gravel strata of this formation occur in areas of alluvial fans and toeslopes on most of the valley sides, especially in the Dayton and Clifton area, and on the lower slopes of the mountain ranges (Randolph, 1978). The oldest alluvial deposits of the Lake Bonneville Group form the parent material for the soils above the Lake Thatcher and Bonneville Terraces. These ancient shorelines are especially evident in Mound and Gentile Valleys. The reddish sediments of ancient Lake Bonneville were deposited at elevations of less than 5,200 feet about 16,000 to 32,000 years ago. The older, light colored deposits of Lake Thatcher extend to an elevation of about 5,400 feet.

The late Tertiary Salt Lake Group consists of tuffaceous rocks and sediments, which generally are on the intermediate and lower slopes above the elevation of the Bonneville Terrace (about 5,200 feet), especially on the east face of the Malad Range (Skipp and others, 1980). Bedrock in the mountain ranges consists almost exclusively



of hard, fractured Upper Paleozoic sedimentary rocks (Ross and Forrester, 1958). The oldest rocks in the survey area are on Oxford Peak, in the Bannock Range. These are Precambrian rocks that are mainly quartzite, argillite, and amphibolite. Soils in the mountainous parts of the survey area vary greatly because of many bedrock lithologies, different slopes and aspects, and different weathering rates.

The formations made up of limestone, calcareous siltstone, and dolomite have contributed carbonates to most of the soils in the survey area. Another source of carbonates is loess carried by the prevailing southwesterly winds, which erode calcareous lacustrine deposits. Lphl soils are an example of soils influenced by calcareous loess. Some soils in the mountains formed in the absence of carbonates. They are well developed, have a high content of clay, and/or have a thick, dark surface horizon. Examples of the soils with these properties are Northwater, Softback, and Yeates Hollow soils.

In the southwestern and eastern parts of the survey area, the bedrock geology is dominated by Tertiary volcanic rocks. These rocks formed from volcanic debris deposited in ancient pyroclastic flows (Skipp and others, 1980). The soils associated with the volcanic rocks formed dominantly in alluvium and residuum that is high in content of volcanic glass, which is inherited from the local rocks. Copenhagen, Lonigan, Nyman, and Wormcreek soils are dominant in these parts of the survey area.

The intermediate terraces and valleys in the survey area have soils with varying degrees of development. Elevations range from 4,400 to 5,800 feet. Slopes are nearly level to steep. The soils are dominantly very deep, calcareous, and well drained and have a dark surface horizon. Huffman, Kidman, Parleys, and Welby soils are notable in that they all have carbonates. Most commonly, carbonates are leached from the surface downward and accumulate in the lower horizons. These soils occur in Cache, Gentile, and Mound Valleys. Soils at the level of the Bonneville Terrace have gravelly textures because wave action eroded rock outcrops at the edge of the ancient lake. Hondoho, Hondree, and Sterling soils are dominant on the Bonneville Terrace in the eastern and northern parts of Cache Valley.

Some of the soils between elevations of 4,400 and 5,800 feet formed on flood plains and stream terraces bordered by meandering stream channels. Cachecan, Delish, Downata, and Lando soils are examples. They formed in stratified alluvium that was deposited by floodwater during years of high precipitation. The dominant soils on flood plains and stream terraces in Mound Valley are Bear Lake, Downata, Lago, and Merkle soils. These soils are characterized by a high content of organic matter in the surface horizon and carbonates in some part of the profile.

The parent materials in Cache Valley are somewhat similar to those in Mound Valley. Cache Valley is a lakebed in which lacustrine and fluvial processes have influenced the parent materials. The lakebed has been dissected by stream action of the Bear River and other streams. The soils in Mound Valley differ from the soils in Cache Valley mainly in the content of clay and sodium in the subsoil. In Cache Valley, clay is in abundance and sodium occurs at low or moderate levels in the subsoil. Most of the clay and sodium is inherited from the lacustrine deposits. Additionally, applied irrigation water may contribute to the sodium levels in Thatcherflats and Trenton soils. Other common soils in this area are Airport, Ant Flat, Banida, and Oxford soils.

## **Climate**

Climate has a strong influence on soil formation. Temperature and precipitation influence the rate at which parent material weathers. The vegetation that provides organic matter for soil development is dependent on temperature and precipitation.

The climate in this survey area is characterized by cool, wet winters and warm, dry summers. The driest and warmest soils are in the southwestern part of the survey area, near Weston. These soils receive about 13 inches of precipitation annually. In contrast, the wettest and coldest soils are in the high mountains, where the annual precipitation is about 35 to 40 inches. The mean annual air temperature ranges from about 48 degrees F in the warmest areas to about 37 degrees F in the coldest areas.

Soil formation in the drier parts of the survey area is relatively slow because of a scarcity of available water for pedogenic processes. The result of the dominant process is a relatively high amount of carbonates and salts that remain or accumulate in the soils as ground water evaporates. The main soils in the drier areas are those of the Airport, Kidman, Layton, and Welby series.

Soils at elevations of about 5,200 to 6,200 feet have different properties because of an increase in precipitation and cooler temperatures. These soils are characterized by darker surface horizons and lighter colored subsoils with differing amounts of carbonates. The darker surface colors are the result of an increase in the content of organic matter. The lighter subsoil colors occur because carbonates are leached to lower depths in the profile. The dominant soils in this intermediate climatic zone are those of the Kearns, Parleys, and Thatcher series. The mean annual precipitation in this zone ranges from 14 to 17 inches. The mean annual air temperature ranges from 42 to 46 degrees F.

Soils at an elevation of more than 6,200 feet commonly receive 16 or more inches of precipitation annually. This additional moisture has leached carbonates to a depth of 18 inches or more in most of the soils. A high content of organic matter in these soils is evidenced by dark surface horizons. On Northwater and other soils, the vegetation is abundant because of cool, moist conditions on north-facing slopes. Depending on the landscape position and kind of parent material, a few of the soils, for example, Manila and Broadhead soils, have B horizons with a high content of clay. These argillic horizons form because water percolating through the profile results in the downward movement and concentration of clay in the B horizons.

## Living Organisms

Soil formation is greatly influenced by plant and animal activity. Organic matter, acidity, and bulk density are the soil characteristics most quickly influenced by the kinds of plants and animals.

The type of vegetation growing on a given soil is dependent on two main factors. The first of these is the amount and quality of the water available to plants, and the second is the number of frost-free days.

Near Weston, the natural conditions favor the growth of drought-tolerant vegetation. They limit the density and variety of grasses that can grow. Consequently, the soils receive very little organic matter and are light colored throughout. The dominant soils in the southwestern part of Cache Valley are Wheelon soils on convex slopes and Collinston soils on concave slopes. The vegetation in this area is basin big sagebrush, needlegrass, and Indian ricegrass.

In the northern part of Cache Valley, the amount of annual precipitation is higher and the vegetation is more productive. Consequently, the soils have a darker surface horizon. The dominant soils are those of the Ant Flat, Parleys, and Winwell series. The grasses are primarily wheatgrasses and bluegrasses. The shrubs are antelope bitterbrush and basin big sagebrush. The plant communities in this area also have significant amounts of forbs, primarily arrowleaf balsamroot.

Soils above the level of the Bonneville Terrace formed under conditions that favor the growth of grasses, forbs, and shrubs. Several species of bluegrass and wheatgrass and many forbs and shrubs contribute significant amounts of organic

matter to these soils. Hades, Lanoak, and Softback are examples of the soils in this area. Microbial activity is the highest in these soils. Rodent and earthworm activity causes mixing in the soil profile. The mixing improves tilth and fertility. At the highest elevations, between 6,200 and 8,000 feet, the plant communities include conifers on concave slopes and on north- and east-facing slopes.

## Relief

Relief in the survey area is primarily a function of mountain-building activities and geologic erosion. Relief affects microclimate, drainage, and surface runoff. The general landscapes of the survey area are plains, lake plains, alluvial plains (piedmont slopes), hills, and mountains. The major landforms within these general landscapes are lake terraces, fan remnants, dunes, stream terraces, flood plains, hillslopes, and mountain slopes.

The soils on lake plains have slopes of 0 to 4 percent. At elevations of about 4,600 feet and lower, the soils commonly are somewhat poorly drained or poorly drained and have slopes of 0 to 2 percent. Soils at slightly higher elevations are better drained and in some areas are on steeper slopes. The water table on the lake plains is fed by the surrounding area's ground water tables, which are perched on top of impermeable, stratified lake sediments. These sediments are commonly 10 to 20 feet below the surface.

From the lowest point on the lake plains to the highest shoreline of ancient Lake Bonneville is a vertical distance of about 700 feet. The highest shoreline is marked by steeper slopes where wave action has etched a horizontal strandline across the mountains. This strandline is visible today as the nearly continuous Bonneville Terrace, which follows the contour of that ancient shoreline. The soils that formed in the swash zone consist of calcareous silts and rock fragments. They are mapped as Cedarhill and Sterling soils. On the highest stream terrace along the Bear River in Cache Valley, the alluvial, lacustrine and eolian deposits are sands and sandy loams and have been mapped as Kidman, Layton, Maplecreek, and Preston soils.

When ancient Lake Bonneville breached a natural barrier at Red Rock Pass, directly north of the survey area, the water level dropped in a relatively short period and then stabilized at a lower level named the Provo. A second, lower strandline occurs where wave action again formed the nearly continuous Provo Terrace. The vertical distance from the Bonneville Terrace to the Provo Terrace is about 300 feet.

The soils between the level of Cache Valley and the Bonneville Terrace are on nearly level to gently rolling terraces. In the southern part of the survey area, the landscape is dominated by lake plains. Near the mountains, the landscape gradually changes to gently rolling alluvial plains (piedmont slopes) and hills. Perennial streams have cut channels in these areas and have carried sediment from the gently rolling plains and hills. The dominant soils are those of the Ant Flat, Banida, Oxford, and Wheelon series. While ancient Lake Bonneville was receding, stream processes occurred on the emerging lake plain and deposited sandy alluvium. In places, prevailing winds have since reworked these deposits, forming dunes. Preston soils are on the dunes.

Soils above the level of the Bonneville Terrace are primarily on mountain landforms. These mountains are oriented north to south in three separate ranges—the Bannock and Malad Ranges on the west and the Bear River Range on the east. The soils on mountains vary greatly with aspect and landform position. The soils on summits and shoulders generally are shallow and very stony, the soils on backslopes and footslopes are moderately deep to very deep and vary in content of rock fragments, and the soils on toeslopes are very deep and loamy. The dominant mountain soils are those of the Manila, Softback, Vitale, and Yeates Hollow series.

## Time

The degree of profile development in a soil is a function of how long the parent material is exposed to the other factors of soil formation. The relative age of a soil in a given area is shown by the degree of development in the soil horizons. If all factors are the same, except for time, two soils may show significant differences in the content of organic matter in the surface horizon, the content of clay in the subsoil, and the depth to soluble minerals, such as calcium carbonate.

The youngest soils in the survey area are Preston soils, which formed in Recent deposits of sandy eolian material. These soils have very little organic matter, minimal subsoil development, and little evidence of leaching.

Many of the alluvial soils are old enough to have developed a well expressed topsoil and subsoil. At elevations below 5,200 feet, soils developed after Quaternary Lake Bonneville receded. Above that elevation, the age of the alluvial soils and surficial deposits ranges from that of Pleistocene fan remnants on piedmont slopes to that of Recent deposits on the toeslopes and footslopes of mountains.

Most of the soils below the Bonneville Terrace are of two types. The first type is characterized by a dark topsoil, weak subsoil development, and carbonates throughout the profile or directly below the subsoil. The dominant soils of this type are those of the Kearns, Kidman, and Lando series. The second type is characterized by a dark topsoil, strong subsoil development, and a high content of clay. The dominant soils of this type are those of the Battle Creek, Parleys, and Trenton series.

Some of the older soils in the survey area are on the backslopes of steep mountain slopes. Manila and Vitale soils have been developing for more than 16,000 years. Generally, these soils have a high content of organic matter. In the soils on ridges and steep slopes, the horizons high in content of organic matter are somewhat eroded and may be very thin. Other old soils in the survey area, such as Northwater and Yeates Hollow soils, are in concave areas on north- and east-facing slopes where material being moved downslope during spring runoff accumulates and develops with time. A high content of large rock fragments in the soils on mountain landscapes helps to stabilize the surface and allows soil formation to outpace geologic erosion. Soils on landforms of a similar age but with minimal development are the ashy soils in the southwestern and eastern parts of the survey area. Lonigan, Nyman, and Wormcreek soils, for example, have significant amounts of silica-rich volcanic ash and have fewer large rock fragments on the surface than the Northwater and Yeates Hollow soils. The accelerated erosion rate on the steep, erodible slopes appears to be the main reason that these ashy soils are much less developed than other soils on landforms of comparable age.



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# Glossary

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**Aggregate, soil.** Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

**Alkali (sodic) soil.** A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

**Alluvial fan.** The fanlike deposit of a stream where it issues from a canyon upon a plain (piedmont slope) or of a tributary stream near or at its junction with its main stream.

**Alluvium.** Material, such as sand, silt, or clay, deposited on land by streams.

**Animal unit month (AUM).** The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

**Aquic conditions.** Current soil wetness characterized by saturation, reduction, and redoximorphic features.

**Argillic horizon.** A subsoil horizon characterized by an accumulation of illuvial clay.

**Aspect.** The direction in which a slope faces.

**Association, soil.** A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

**Available water capacity (available moisture capacity).** The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low .....	0 to 3
Low .....	3 to 6
Moderate .....	6 to 9
High .....	9 to 12
Very high .....	more than 12

**Backslope.** The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

**Basal area.** The area of a cross section of a tree trunk, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet. Basal area per acre is the sum of basal areas of the individual trees on an acre.

**Base saturation.** The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

**Bedrock.** The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

**Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.

- Brush management.** Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.
- Butte.** An isolated small mountain or hill with steep or precipitous sides and a top variously flat, rounded, or pointed that may be a residual mass isolated by erosion or an exposed volcanic neck.
- Calcareous soil.** A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.
- California bearing ratio (CBR).** The load-supporting capacity of a soil as compared to that of standard crushed limestone, expressed as a ratio. First standardized in California. A soil having a CBR of 16 supports 16 percent of the load that would be supported by standard crushed limestone, per unit area, with the same degree of distortion.
- Canyon.** A long, deep, narrow, very steep sided valley with high, precipitous walls in an area of high local relief.
- Capillary water.** Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.
- Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- Cation-exchange capacity.** The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- Channery soil material.** Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a chanter.
- Chemical treatment.** Control of unwanted vegetation through the use of chemicals.
- Chiseling.** Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.
- Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Claypan.** A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.
- Climax plant community.** The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
- Coarse textured soil.** Sand or loamy sand.
- Cobble (or cobblestone).** A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
- Cobbly soil material.** Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
- COLE (coefficient of linear extensibility).** See Linear extensibility.
- Colluvium.** Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

- Complex, soil.** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
- Concretions.** Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.
- Conglomerate.** A coarse grained, clastic rock composed of rounded or subangular rock fragments more than 2 millimeters in diameter. It commonly has a matrix of sand and finer textured material. Conglomerate is the consolidated equivalent of gravel.
- Conservation cropping system.** Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.
- Conservation tillage.** A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.
- Consistence, soil.** Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."
- Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.
- Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
- Corrosion.** Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.
- Cover crop.** A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.
- Crop residue management.** Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.
- Cropping system.** Growing crops according to a planned system of rotation and management practices.
- Cross-slope farming.** Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.
- Cutbanks cave** (in tables). The walls of excavations tend to cave in or slough.
- Decreasers.** The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.
- Deferred grazing.** Postponing grazing or resting grazing land for a prescribed period.

- Dense layer** (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.
- Depression.** Any relatively sunken part of the earth's surface, especially a low-lying area surrounded by higher ground.
- Depth, soil.** Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.
- Diversion (or diversion terrace).** A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.
- Divided-slope farming.** A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.
- Drainage class** (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained*, *somewhat excessively drained*, *well drained*, *moderately well drained*, *somewhat poorly drained*, *poorly drained*, and *very poorly drained*. These classes are defined in the "Soil Survey Manual."
- Drainage, surface.** Runoff, or surface flow of water, from an area.
- Draw.** A small stream valley that generally is more open and has broader bottom land than a ravine or gulch.
- Duff.** A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.
- Dune.** A low mound, ridge, bank, or hill of loose, windblown, subaerially deposited, granular material (generally sand). Dunes either are barren and capable of movement from place to place or are covered and stabilized with vegetation. They retain their characteristic shape.
- Ecological site.** An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.
- Eluviation.** The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.
- Endosaturation.** A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.
- Eolian soil material.** Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.
- Episaturation.** A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.
- Erosion.** The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

*Erosion* (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

*Erosion* (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

**Escarpment.** A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

**Fallow.** Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

**Fan remnant.** A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.

**Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

**Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.

**Fine textured soil.** Sandy clay, silty clay, or clay.

**First bottom.** The normal flood plain of a stream, subject to frequent or occasional flooding.

**Flaggy soil material.** Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.

**Flagstone.** A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.

**Flood plain.** A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

**Fluvial.** Of or pertaining to rivers; produced by river action, as a fluvial plain.

**Foothill.** A steeply sloping upland that has relief of as much as 1,000 feet (300 meters) and fringes a mountain range or high-plateau escarpment.

**Footslope.** The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

**Forb.** Any herbaceous plant not a grass or a sedge.

**Genesis, soil.** The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

**Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

**Grassed waterway.** A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

**Gravel.** Rounded or angular fragments of rock as much as 3 inches (7.6 centimeters) in diameter. An individual piece is a pebble.

**Gravelly soil material.** Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.



- Green manure crop** (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.
- Ground water.** Water filling all the unblocked pores of the material below the water table.
- Gully.** A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.
- Habitat types.** Land areas that are capable of producing similar plant communities at the climax ecological stage (the culminating stage in forest succession) for the site.
- Hard bedrock.** Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.
- Hard to reclaim** (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.
- Hardpan.** A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.
- High-residue crops.** Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.
- Hill.** A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.
- Horizon, soil.** A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:
- O horizon.*—An organic layer of fresh and decaying plant residue.
- A horizon.*—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.
- E horizon.*—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.
- B horizon.*—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.
- C horizon.*—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.
- Cr layer.*—Soft, consolidated bedrock beneath the soil.

*R layer.*—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

**Humus.** The well decomposed, more or less stable part of the organic matter in mineral soils.

**Hydrologic soil groups.** Refers to soils grouped according to their runoff potential.

The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

**Igneous rock.** Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

**Illuviation.** The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

**Impervious soil.** A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

**Increasers.** Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

**Infiltration.** The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

**Infiltration rate.** The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

**Intake rate.** The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application.

**Interfluv.** An elevated area between two drainageways that sheds water to those drainageways.

**Intermittent stream.** A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

**Invaders.** On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

**Iron depletions.** Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

**Irrigation.** Application of water to soils to assist in production of crops. Methods of irrigation are:

*Basin.*—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

*Border.*—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

*Controlled flooding.*—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

*Corrugation.*—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

*Drip (or trickle).*—Water is applied slowly and under low pressure to the surface



of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

*Furrow*.—Water is applied in small ditches made by cultivation implements.

Furrows are used for tree and row crops.

*Sprinkler*.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

**Ksat**. Saturated hydraulic conductivity. (Also see Permeability.) Terms describing classes of saturated hydraulic conductivity, measured in inches per hour, are as follows:

Very low .....	less than 0.001417 inch
Low .....	0.001417 to 0.01417 inch
Moderately low .....	0.01417 to 0.1417 inch
Moderately high .....	0.1417 inch to 1.417 inches
High .....	1.417 to 14.17 inches
Very high .....	more than 14.17 inches

**Lacustrine deposit**. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

**Lake plain**. A nearly level surface marking the floor of an extinct lake filled by well sorted, generally fine textured, stratified deposits.

**Large stones** (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

**Leaching**. The removal of soluble material from soil or other material by percolating water.

**Linear extensibility**. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at  $\frac{1}{3}$ - or  $\frac{1}{10}$ -bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

**Liquid limit**. The moisture content at which the soil passes from a plastic to a liquid state.

**Loam**. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

**Loess**. Fine grained material, dominantly of silt-sized particles, deposited by wind.

**Low strength**. The soil is not strong enough to support loads.

**Low-residue crops**. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

**Masses**. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

**Mechanical treatment**. Use of mechanical equipment for seeding, brush management, and other management practices.

**Medium textured soil**. Very fine sandy loam, loam, silt loam, or silt.

**Metamorphic rock**. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

**Mineral soil**. Soil that is mainly mineral material and low in content of organic material. Its bulk density is more than that of organic soil.

- Minimum tillage.** Only the tillage essential to crop production and prevention of soil damage.
- Miscellaneous area.** An area that has little or no natural soil and supports little or no vegetation.
- Moderately coarse textured soil.** Coarse sandy loam, sandy loam, or fine sandy loam.
- Moderately fine textured soil.** Clay loam, sandy clay loam, or silty clay loam.
- Mollic epipedon.** A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.
- Morphology, soil.** The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.
- Mottling, soil.** Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).
- Mountain.** A natural elevation of the land surface, rising more than 1,000 feet above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range.
- Mountain slope.** A part of a mountain between the summit and the foot.
- Munsell notation.** A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.
- Natric horizon.** A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.
- Natural regeneration.** The establishment of tree seedlings through natural seeding.
- Neutral soil.** A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)
- Nodules.** Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.
- Nutrient, plant.** Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.
- Organic matter.** Plant and animal residue in the soil in various stages of decomposition.
- Paleozoic.** The era of geologic time following the Precambrian and preceding the Mesozoic (from approximately 570 to 243 million years ago).
- Pan.** A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *duripan*, *claypan*, *plowpan*, and *traffic pan*.
- Parent material.** The unconsolidated organic and mineral material in which soil forms.
- Ped.** An individual natural soil aggregate, such as a granule, a prism, or a block.
- Pedon.** The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

**Percolation.** The movement of water through the soil.

**Permeability.** The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated hydraulic conductivity (Ksat),” which is defined in the “Soil Survey Manual.” In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as “permeability.” Terms describing permeability, measured in inches per hour, are as follows:

Impermeable .....	less than 0.0015 inch
Very slow .....	0.0015 to 0.06 inch
Slow .....	0.06 to 0.2 inch
Moderately slow .....	0.2 to 0.6 inch
Moderate .....	0.6 inch to 2.0 inches
Moderately rapid .....	2.0 to 6.0 inches
Rapid .....	6.0 to 20 inches
Very rapid .....	more than 20 inches

**pH value.** A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

**Phase, soil.** A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

**Piedmont slope.** The dominant gentle slope at the foot of a mountain. Piedmont slopes grade to basin-floor depressions with alluvial and temporary lake plains or to surfaces associated with through drainage.

**Piping** (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

**Plastic limit.** The moisture content at which a soil changes from semisolid to plastic.

**Plasticity index.** The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

**Playa.** The generally dry and nearly level lake plain that occupies the lowest parts of closed depressional areas, such as those on intermontane basin floors. Temporary flooding occurs primarily in response to precipitation and runoff.

**Pleistocene.** The first epoch of the Quaternary Period of geologic time, following the Tertiary Pliocene and preceding the Holocene (from approximately 2 million to 10 thousand years ago).

**Plowpan.** A compacted layer formed in the soil directly below the plowed layer.

**Ponding.** Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

**Poorly graded.** Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

**Potential native plant community.** See Climax plant community.

**Potential rooting depth (effective rooting depth).** Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

**Precambrian.** All geologic time before the beginning of the Paleozoic (prior to 570 million years ago).

**Prescribed burning.** Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

**Productivity, soil.** The capability of a soil for producing a specified plant or sequence of plants under specific management.

**Profile, soil.** A vertical section of the soil extending through all its horizons and into the parent material.

**Proper grazing use.** Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

**Quaternary.** The second period of the Cenozoic Era of geologic time, extending from the end of the Tertiary Period (about 2 million years ago) to the present and comprising two epochs, the Pleistocene (Ice Age) and Holocene (Recent).

**Range condition.** The present composition of the plant community on a range site in relation to the potential natural plant community for that site. Range condition is expressed as excellent, good, fair, or poor on the basis of how much the present plant community has departed from the potential.

**Range site.** An area of rangeland where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. A range site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other range sites in kind or proportion of species or total production.

**Rangeland.** Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

**Reaction, soil.** A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid .....	less than 3.5
Extremely acid .....	3.5 to 4.4
Very strongly acid .....	4.5 to 5.0
Strongly acid .....	5.1 to 5.5
Moderately acid .....	5.6 to 6.0
Slightly acid .....	6.1 to 6.5
Neutral .....	6.6 to 7.3
Slightly alkaline .....	7.4 to 7.8
Moderately alkaline .....	7.9 to 8.4
Strongly alkaline .....	8.5 to 9.0
Very strongly alkaline .....	9.1 and higher

**Redoximorphic concentrations.** Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

**Redoximorphic depletions.** Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

**Redoximorphic features.** Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

**Reduced matrix.** A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

- Regolith.** The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.
- Relief.** The elevations or inequalities of a land surface, considered collectively.
- Residuum (residual soil material).** Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.
- Rill.** A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.
- Road cut.** A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
- Rock fragments.** Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
- Root zone.** The part of the soil that can be penetrated by plant roots.
- Runoff.** The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.
- Saline soil.** A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.
- Sand.** As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.
- Sandstone.** Sedimentary rock containing dominantly sand-sized particles.
- Saturated hydraulic conductivity.** See Ksat.
- Saturation.** Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.
- Second bottom.** The first terrace above the normal flood plain (or first bottom) of a river.
- Sedimentary rock.** Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.
- Seral.** A phase (or successional stage) of ecological development toward a more mature or climax community.
- Series, soil.** A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- Shale.** Sedimentary rock formed by the hardening of a clay deposit.
- Sheet erosion.** The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- Shoulder.** The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.
- Shrink-swell (in tables).** The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- Silica.** A combination of silicon and oxygen. The mineral form is called quartz.
- Silt.** As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- Siltstone.** Sedimentary rock made up of dominantly silt-sized particles.

**Similar soils.** Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

**Site index.** A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

**Site preparation.** Preparing an area of land for forest establishment.

**Slickensides.** Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

**Slope.** The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Nearly level .....	0 to 2 percent
Gently sloping .....	2 to 4 percent
Moderately sloping .....	4 to 12 percent
Strongly sloping .....	12 to 20 percent
Moderately steep .....	20 to 30 percent
Steep .....	30 to 60 percent
Very steep .....	60 percent and higher

**Slow refill** (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

**Sodic (alkali) soil.** A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

**Sodium adsorption ratio (SAR).** A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

**Soft bedrock.** Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

**Soil.** A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

**Soil separates.** Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand .....	2.0 to 1.0
Coarse sand .....	1.0 to 0.5
Medium sand .....	0.5 to 0.25
Fine sand .....	0.25 to 0.10
Very fine sand .....	0.10 to 0.05
Silt .....	0.05 to 0.002
Clay .....	less than 0.002

**Solum.** The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.



**Stand density.** The quantity of trees per unit of area, usually expressed as trees per acre. Stocking is a closely related term that describes the number of trees (or basal area or volume) per unit area (usually acre) in a forest stand compared with a desired level for optimum growth and management.

**Stones.** Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

**Stony.** Refers to a soil containing stones in numbers that interfere with or prevent tillage.

**Strandline.** A former shoreline now elevated above the present water level.

**Stream terrace.** One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream, and representing the dissected remnants of an abandoned flood plain, streambed, or valley floor produced during a former stage of erosion and deposition. Older and higher stream terraces have a relatively flat summit surface (tread), built by stream deposition, and a steep descending slope (riser), graded to a lower base level of erosion.

**Stripcropping.** Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

**Structure, soil.** The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

**Stubble mulch.** Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

**Subsoil.** Technically, the B horizon; roughly, the part of the solum below plow depth.

**Subsoiling.** Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

**Substratum.** The part of the soil below the solum.

**Subsurface layer.** Any surface soil horizon (A, E, AB, or EB) below the surface layer.

**Succession.** A term given for changes in the plant community of a given area.

**Summer fallow.** The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

**Summit.** The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

**Surface layer.** The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

**Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

**Taxadjuncts.** Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.



**Terrace.** An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

**Terrace** (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

**Tertiary.** The first period of the Cenozoic Era of geologic time (from approximately 65 to 2 million years ago).

**Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

**Thin layer** (in tables). Otherwise suitable soil material that is too thin for the specified use.

**Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

**Toeslope.** The position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

**Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

**Tuff.** A compacted deposit that is 50 percent or more volcanic ash and dust.

**Upland.** Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

**Volcanic rock.** Igneous rock derived from deep-seated molten matter (magma) emplaced on the earth's surface.

**Weathering.** All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

**Well graded.** Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.



# Tables

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# Soil Survey of Franklin County Area, Idaho

Table 1.--Temperature and Precipitation  
(Recorded in the period 1966-90 at Preston, Idaho)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have--		Average number of growing degree days*	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more	Average snowfall
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--		
°F	°F	°F	°F	°F	Units	In	In	In		In	
January-----	30.1	11.7	20.9	49	-17	0	1.23	0.74	1.68	4	9.6
February----	36.0	14.8	25.4	55	-14	3	1.10	.39	1.69	3	7.0
March-----	46.8	24.2	35.5	68	2	35	1.32	.51	2.01	4	2.1
April-----	57.0	30.5	43.7	79	16	120	1.24	.54	1.84	4	1.2
May-----	67.9	38.6	53.2	85	24	309	1.92	.61	3.22	4	.1
June-----	77.0	44.8	60.9	93	32	526	1.60	.57	2.45	4	.0
July-----	86.6	51.0	68.8	98	37	723	.83	.21	1.32	2	.0
August-----	86.6	50.3	68.5	97	37	766	1.07	.33	1.79	2	.0
September---	74.7	41.4	58.1	91	25	434	1.58	.61	2.39	3	.0
October-----	59.9	31.1	45.5	78	16	169	1.51	.58	2.44	4	.7
November----	44.9	24.3	34.6	65	5	28	1.21	.63	1.85	4	2.9
December----	31.7	12.8	22.3	53	-16	1	1.42	.66	2.23	4	11.5
Yearly:											
Average---	58.3	31.3	44.8	---	---	---	---	---	---	---	---
Extreme---	101	-31	---	100	-23	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,114	16.03	7.92	18.63	42	35.1

\* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

# Soil Survey of Franklin County Area, Idaho

Table 2.--Freeze Dates in Spring and Fall  
(Recorded in the period 1966-1990 at Preston, Idaho)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than-----	May 8	May 27	June 23
2 years in 10 later than-----	May 3	May 21	June 13
5 years in 10 later than-----	April 23	May 10	May 27
First freezing temperature in fall:			
1 year in 10 earlier than---	Sept. 26	Sept. 18	Sept. 13
2 years in 10 earlier than---	Oct. 1	Sept. 22	Sept. 16
5 years in 10 earlier than---	Oct. 11	Sept. 30	Sept. 22

Table 3.--Growing Season  
(Recorded in the period 1966-1990 at Preston, Idaho)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	<i>Days</i>	<i>Days</i>	<i>Days</i>
9 years in 10	132	112	83
8 years in 10	140	120	94
5 years in 10	157	134	113
2 years in 10	173	148	132
1 year in 10	182	155	142

# Soil Survey of Franklin County Area, Idaho

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
1	Airport silty clay loam, 0 to 3 percent slopes-----	17	*
2	Ant Flat silty clay loam, 0 to 2 percent slopes-----	5,694	1.9
3	Ant Flat silty clay loam, 2 to 4 percent slopes-----	2,588	0.8
4	Ant Flat silty clay loam, 4 to 12 percent slopes-----	975	0.3
5	Ant Flat-Oxford complex, 4 to 12 percent slopes-----	222	*
6	Ant Flat-Oxford complex, 12 to 20 percent slopes-----	774	0.3
7	Arbone loam, 0 to 4 percent slopes-----	270	*
8	Banida silty clay loam, 0 to 2 percent slopes-----	980	0.3
9	Banida silty clay loam, 2 to 4 percent slopes-----	2,093	0.7
10	Battle Creek silty clay loam, 0 to 2 percent slopes-----	4,775	1.6
11	Battle Creek silty clay loam, 2 to 4 percent slopes-----	742	0.2
12	Battle Creek silty clay loam, 4 to 8 percent slopes-----	1,114	0.4
13	Bear Lake-Chesbrook-Picabo complex, 0 to 2 percent slopes-----	43	*
14	Bear Lake-Downata complex, 0 to 1 percent slopes-----	1,446	0.5
15	Bear Lake-Downata-Thatcherflats complex, 0 to 1 percent slopes-----	1,423	0.5
16	Bear Lake-Lago complex, 0 to 2 percent slopes-----	653	0.2
17	Bearhollow-Brifox-Iphil complex, 20 to 35 percent slopes-----	96	*
18	Bergquist-Rubble land complex, 50 to 75 percent slopes-----	314	0.1
19	Bergquist-Softback complex, 25 to 65 percent slopes-----	5,592	1.8
20	Bergquist-Vitale complex, 15 to 60 percent slopes-----	2,801	0.9
21	Bothwell silt loam, 4 to 12 percent slopes-----	777	0.3
22	Bothwell silt loam, 12 to 30 percent slopes-----	1,736	0.6
23	Bothwell-Hades-Justesen complex, 6 to 25 percent slopes-----	3,040	1.0
24	Bothwell-Thatcher complex, 4 to 8 percent slopes-----	495	0.2
25	Brifox-Huffman complex, 4 to 12 percent slopes-----	711	0.2
26	Brifox-Huffman complex, 12 to 30 percent slopes-----	3,033	1.0
27	Brifox-Niter complex, 4 to 12 percent slopes-----	7	*
28	Brifox-Niter complex, 12 to 25 percent slopes-----	32	*
29	Brifox-Niter complex, 25 to 35 percent slopes-----	202	*
30	Broadhead-Hades-Yago complex, 4 to 20 percent slopes-----	48	*
31	Broadhead-Yago complex, 12 to 20 percent slopes-----	25	*
32	Camelback-Lonigan complex, 20 to 50 percent slopes-----	48	*
33	Camelback-Valmar-Hades complex, 20 to 30 percent slopes-----	82	*
34	Cedarhill very gravelly silt loam, 12 to 20 percent slopes-----	1,502	0.5
35	Cedarhill-Hades-Ricrest complex, 20 to 50 percent slopes-----	48	*
36	Cedarhill-Hondoho-Ridgecrest complex, 20 to 50 percent slopes-----	517	0.2
37	Chesbrook-Bear Lake complex, 0 to 2 percent slopes-----	97	*
38	Cloudless-Hades complex, 4 to 12 percent slopes-----	2,662	0.9
39	Cloudless-Hades-Howcan complex, 12 to 20 percent slopes-----	3,582	1.2
40	Copenhagen-Lonigan-Manila association, 12 to 50 percent slopes-----	2,129	0.7
41	Delish-Cachecan-Stinkcreek complex, 0 to 2 percent slopes-----	2,117	0.7
42	Downata silt loam, 0 to 1 percent slopes-----	326	0.1
43	Dranburn-Robin complex, 15 to 45 percent slopes-----	2,899	0.9
44	Enochville silt loam, 0 to 1 percent slopes-----	50	*
45	Foxol-Vitale complex, 20 to 55 percent slopes-----	3,981	1.3
46	Hades-Camelback-Hondoho complex, 30 to 60 percent slopes-----	421	0.1
47	Hades-Lanoak-Camelback complex, 20 to 50 percent slopes-----	38	*
48	Haploxerolls-Xerorthents complex, 20 to 60 percent slopes-----	1,100	0.4
49	Hendricks silt loam, 6 to 10 percent slopes-----	99	*
50	Holmes gravelly silt loam, 0 to 2 percent slopes-----	1,012	0.3
51	Hondee gravelly loam, 1 to 4 percent slopes-----	1,897	0.6
52	Hondee gravelly loam, 4 to 12 percent slopes-----	1,745	0.6
53	Hondoho-Hades complex, 4 to 12 percent slopes-----	29	*
54	Hondoho-Ricrest complex, 4 to 20 percent slopes-----	1,149	0.4
55	Hondoho-Sprollow-Hades complex, 12 to 50 percent slopes-----	5,128	1.7
56	Hondoho-Vitale complex, 20 to 50 percent slopes-----	1,062	0.3
57	Huffman silt loam, 0 to 4 percent slopes-----	642	0.2
58	Huffman silt loam, 4 to 12 percent slopes-----	666	0.2
59	Huffman-Dirtyhead complex, 4 to 12 percent slopes-----	1,367	0.4
60	Huffman-Harroun-Lanoak complex, 2 to 12 percent slopes-----	457	0.1
61	Huffman-Wursten complex, 4 to 12 percent slopes-----	546	0.2
62	Iphil-Lonigan complex, 8 to 20 percent slopes-----	1,733	0.6

\* See footnote at end of table.

# Soil Survey of Franklin County Area, Idaho

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
63	Ireland-Polumar complex, 25 to 55 percent slopes-----	4,179	1.4
64	Kabear-Staberg-Copenhagen complex, 4 to 12 percent slopes-----	222	*
65	Kabear-Staberg-Copenhagen complex, 12 to 30 percent slopes-----	564	0.2
66	Kearns silt loam, 0 to 2 percent slopes-----	823	0.3
67	Kearnsar-Battle Creek complex, 0 to 4 percent slopes-----	886	0.3
68	Kidman fine sandy loam, 0 to 2 percent slopes-----	5,204	1.7
69	Kidman fine sandy loam, 2 to 4 percent slopes-----	2,053	0.7
70	Kidman fine sandy loam, 20 to 40 percent slopes-----	1,714	0.6
71	Kidman fine sandy loam, wet, 0 to 2 percent slopes-----	1,283	0.4
72	Kidman-Sterling complex, 0 to 2 percent slopes-----	598	0.2
73	Lando silt loam, 0 to 4 percent slopes-----	3,436	1.1
74	Lanoak silt loam, 0 to 4 percent slopes-----	2,413	0.8
75	Lanoak silt loam, 4 to 12 percent slopes-----	1,402	0.5
76	Lanoak-Broadhead complex, 12 to 30 percent slopes-----	4,044	1.3
77	Lanoak-Broadhead-Hades complex, 25 to 50 percent slopes-----	2,495	0.8
78	Lanoak-Hades complex, 6 to 20 percent slopes-----	295	*
79	Lanoak-Thatcher complex, 12 to 30 percent slopes-----	1,347	0.4
80	Layton loamy fine sand, 0 to 2 percent slopes-----	514	0.2
81	Layton sandy loam, 0 to 2 percent slopes-----	1,259	0.4
82	Lizdale very stony loam, 30 to 60 percent slopes-----	3,100	1.0
83	Lizdale-Searla complex, 12 to 30 percent slopes-----	2,513	0.8
84	Logan silty clay loam, 0 to 3 percent slopes-----	156	*
85	Lonigan-Lizdale association, 6 to 40 percent slopes-----	523	0.2
86	Lonigan-Ricrest association, 50 to 80 percent slopes-----	1,408	0.5
87	Manila silt loam, 0 to 4 percent slopes-----	388	0.1
88	Manila silt loam, 4 to 12 percent slopes-----	717	0.2
89	Manila silt loam, 12 to 30 percent slopes-----	1,342	0.4
90	Manila-Bancroft complex, 6 to 15 percent slopes-----	26	*
91	Manila-Broadhead complex, 4 to 12 percent slopes-----	6,418	2.1
92	Manila-Broadhead complex, 12 to 30 percent slopes-----	9,193	3.0
93	Manila-Lonigan complex, 6 to 40 percent slopes-----	751	0.2
94	Manila-Yeates Hollow complex, 6 to 20 percent slopes-----	1,871	0.6
95	Maplecreek fine sandy loam, 0 to 2 percent slopes-----	745	0.2
96	Maplecreek-Layton complex, 0 to 2 percent slopes-----	2,029	0.7
97	Merkley-Lago-Bear Lake complex, 0 to 2 percent slopes-----	1,221	0.4
98	Moonlight-Camelback association, 30 to 60 percent slopes-----	664	0.2
99	Niter-Brifox complex, 1 to 4 percent slopes-----	14	*
100	Northwater-Foxol-Vitale complex, 50 to 80 percent slopes-----	665	0.2
101	Northwater-Povey complex, 10 to 30 percent slopes-----	1,625	0.5
102	Northwater-Povey complex, 30 to 60 percent slopes-----	3,078	1.0
103	Nyman-Lonigan-Copenhagen complex, 30 to 60 percent slopes-----	2,338	0.8
104	Oxford-Banida complex, 2 to 4 percent slopes-----	1,871	0.6
105	Oxford-Banida complex, 4 to 12 percent slopes-----	6,222	2.0
106	Oxford-Banida complex, 12 to 30 percent slopes-----	10,152	3.3
107	Oxford-Gullied land complex, 20 to 50 percent slopes-----	2,683	0.9
108	Parkay-Povey complex, 30 to 60 percent slopes-----	1,326	0.4
109	Parleys silt loam, 0 to 4 percent slopes-----	8,755	2.9
110	Parleys silt loam, 4 to 8 percent slopes-----	218	*
111	Parleys silt loam, wet, 0 to 2 percent slopes-----	2,494	0.8
112	Pavohroo-Sedgway-Toponce complex, 20 to 50 percent slopes-----	310	0.1
113	Picabo-Thatcherflats complex, 0 to 1 percent slopes-----	3,130	1.0
114	Pits, gravel-----	260	*
115	Pollynot gravelly loam, 4 to 12 percent slopes-----	986	0.3
116	Pollynot silt loam, 0 to 2 percent slopes-----	1,496	0.5
117	Pollynot silt loam, 2 to 4 percent slopes-----	1,446	0.5
118	Pollynot silt loam, 4 to 20 percent slopes-----	893	0.3
119	Polumar-Ireland complex, 30 to 60 percent slopes-----	3,220	1.1
120	Polumar-Sprollo-Ireland complex, 40 to 70 percent slopes-----	894	0.3
121	Povey-Hades-Hondoho complex, 10 to 50 percent slopes-----	1,309	0.4
122	Povey-Parkay complex, 30 to 60 percent slopes-----	2,074	0.7
123	Preston fine sand, 0 to 2 percent slopes-----	1,520	0.5
124	Preston fine sand, 2 to 6 percent slopes-----	1,621	0.5

\* See footnote at end of table.



# Soil Survey of Franklin County Area, Idaho

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
125	Preston loamy sand, 6 to 30 percent slopes-----	2,169	0.7
126	Preston-Xerorthents complex, 35 to 60 percent slopes-----	1,723	0.6
127	Ricrest gravelly silt loam, 4 to 12 percent slopes-----	419	0.1
128	Sanyon-Staberg-Kabear complex, 20 to 50 percent slopes-----	3,331	1.1
129	Smidale very channery silt loam, 30 to 60 percent slopes-----	761	0.2
130	Smidale-Staberg complex, 20 to 60 percent slopes-----	1,102	0.4
131	Sprollo-Hondoho complex, 30 to 60 percent slopes-----	2,471	0.8
132	Sprollo-Hymas complex, 30 to 60 percent slopes-----	2,216	0.7
133	Sterling gravelly loam, 0 to 4 percent slopes-----	894	0.3
134	Sterling gravelly loam, 4 to 10 percent slopes-----	1,449	0.5
135	Sterling gravelly loam, 10 to 20 percent slopes-----	149	*
136	Sterling very gravelly loam, 20 to 60 percent slopes-----	1,273	0.4
137	Sterling-Parleys complex, 0 to 6 percent slopes-----	308	0.1
138	Thatcher-Bearhollow complex, 6 to 20 percent slopes-----	633	0.2
139	Toponce-Broadhead association, 6 to 30 percent slopes-----	207	*
140	Trenton-Battle Creek complex, 0 to 2 percent slopes-----	2,380	0.8
141	Trenton-Battle Creek complex, cool, 0 to 2 percent slopes-----	1,538	0.5
142	Trenton-Parleys complex, 0 to 2 percent slopes-----	657	0.2
143	Valmar-Camelback-Hades complex, 30 to 60 percent slopes-----	393	0.1
144	Vitale-Bergquist-Rock outcrop complex, 30 to 60 percent slopes-----	3,780	1.2
145	Vitale-Yeates Hollow-Northwater complex, 12 to 40 percent slopes-----	4,898	1.6
146	Welby silt loam, 0 to 2 percent slopes-----	1,221	0.4
147	Welby silt loam, 2 to 4 percent slopes-----	160	*
148	Welby silt loam, wet, 0 to 2 percent slopes-----	838	0.3
149	Wheelon-Collinston complex, 4 to 12 percent slopes-----	6,751	2.2
150	Wheelon-Collinston complex, 12 to 20 percent slopes-----	3,922	1.3
151	Wheelon-Collinston complex, 20 to 60 percent slopes-----	1,311	0.4
152	Windernot-Lewnot-Stinkcreek complex, 0 to 2 percent slopes-----	5,001	1.6
153	Winn silt loam, 0 to 3 percent slopes-----	38	*
154	Winwell silty clay loam, 0 to 2 percent slopes-----	3,518	1.2
155	Winwell-Collinston complex, 2 to 8 percent slopes-----	2,044	0.7
156	Wormcreek-Copenhagen complex, 15 to 55 percent slopes-----	940	0.3
157	Wormcreek-Lonigan complex, 15 to 55 percent slopes-----	2,313	0.8
158	Wursten-Dirtyhead complex, 12 to 30 percent slopes-----	835	0.3
159	Xerochrepts-Wormcreek-Xerorthents complex, 20 to 70 percent slopes-----	3,511	1.1
160	Xerorthents, 30 to 60 percent slopes-----	1,152	0.4
161	Yeates Hollow extremely stony loam, 12 to 35 percent slopes-----	1,407	0.5
162	Yeates Hollow-Manila-Softback complex, 12 to 40 percent slopes-----	21,361	7.0
163	Yeates Hollow-Vitale complex, 25 to 50 percent slopes-----	3,757	1.2
164	Water-----	2,524	0.8
	Total-----	305,600	100.0

\* Less than 0.1 percent.

Table 5.--Land Capability and Yields per Acre of Crops and Pasture

(Yields in the "N" columns are for nonirrigated areas; those in the "I" columns are for irrigated areas. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
1: Airport-----	6w	4w	---	---	---	---	---	---	0.75	2.00	---	---
2: Ant Flat-----	3s	3s	1.50	4.00	40.00	85.00	---	---	---	---	35.00	50.00
3: Ant Flat-----	3e	3e	1.50	3.50	35.00	80.00	---	---	---	---	30.00	45.00
4: Ant Flat-----	3e	3e	1.25	3.50	30.00	80.00	1.00	3.00	---	---	25.00	40.00
5: Ant Flat-----	3e	3e	1.50	3.50	35.00	80.00	1.00	3.00	---	---	30.00	45.00
Oxford-----	3e	4e	1.50	3.50	30.00	65.00	1.00	3.00	---	---	25.00	65.00
6: Ant Flat-----	4e	---	1.00	---	25.00	---	1.00	---	---	---	20.00	---
Oxford-----	4e	---	1.00	---	25.00	---	1.00	---	---	---	20.00	---
7: Arbone-----	3c	3e	1.50	4.50	30.00	40.00	---	---	---	---	30.00	40.00
8: Banida-----	3s	3s	1.50	3.50	40.00	80.00	---	---	---	---	35.00	70.00
9: Banida-----	3e	3e	1.50	2.50	35.00	80.00	1.50	3.50	---	---	30.00	70.00
10: Battle Creek--	3s	3s	1.50	4.00	45.00	85.00	1.50	4.00	1.50	4.00	40.00	75.00
11: Battle Creek--	3e	3e	1.50	4.00	45.00	85.00	1.50	4.00	1.50	4.00	40.00	70.00
12: Battle Creek--	3e	3e	1.50	4.00	45.00	85.00	1.50	4.00	1.50	4.00	40.00	70.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
13:												
Bear Lake-----	5w	5w	---	---	---	---	---	---	4.00	5.00	---	---
Chesbrook-----	5w	5w	---	---	---	---	---	---	4.50	6.00	---	---
Picabo-----	3w	3w	---	---	---	---	---	---	2.00	5.00	---	---
14:												
Bear Lake-----	5w	5w	---	---	---	---	---	---	7.00	10.00	---	---
Downata-----	5w	5w	---	---	---	---	---	---	7.50	10.00	---	---
15:												
Bear Lake-----	5w	5w	---	---	---	---	---	---	7.00	10.00	---	---
Downata-----	5w	5w	---	---	---	---	---	---	7.50	10.00	---	---
Thatcherflats	4s	4s	---	---	---	---	---	---	1.00	2.00	---	---
16:												
Bear Lake-----	5w	5w	2.00	4.00	---	---	3.00	4.00	4.50	6.00	---	---
Lago-----	4w	4w	1.50	4.00	---	---	2.50	4.00	4.00	5.50	---	---
17:												
Bearhollow----	6e	---	1.50	---	20.00	---	---	---	---	---	20.00	---
Brifox-----	6e	---	0.50	---	25.00	---	---	---	---	---	20.00	---
Iphil-----	6e	---	1.50	---	20.00	---	---	---	---	---	20.00	---
18:												
Bergquist-----	7e	---	---	---	---	---	---	---	---	---	---	---
Rubble land.												
19:												
Bergquist-----	7e	---	---	---	---	---	---	---	---	---	---	---
Softback-----	7s	---	---	---	---	---	---	---	---	---	---	---
20:												
Bergquist-----	6e	---	---	---	---	---	---	---	---	---	---	---
Vitale-----	6s	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
21: Bothwell-----	3e	---	1.80	---	55.00	---	1.50	---	---	---	45.00	---
22: Bothwell-----	4e	---	1.00	---	50.00	---	1.00	---	---	---	40.00	---
23: Bothwell-----	4e	---	---	---	50.00	---	---	---	---	---	40.00	---
Hades-----	4e	---	---	---	30.00	---	---	---	---	---	30.00	---
Justesen-----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
24: Bothwell-----	3e	---	---	---	55.00	---	---	---	---	---	45.00	---
Thatcher-----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
25: Brifox-----	3e	---	1.00	---	30.00	---	1.00	---	1.00	---	25.00	---
Huffman-----	3e	---	1.50	---	35.00	---	2.00	---	2.00	---	27.00	---
26: Brifox-----	4e	---	1.00	---	30.00	---	1.00	---	1.00	---	25.00	---
Huffman-----	4e	---	0.50	---	20.00	---	1.00	---	1.00	---	15.00	---
27: Brifox-----	3e	4e	1.00	3.50	30.00	60.00	---	---	---	---	25.00	55.00
Niter-----	3e	4e	1.00	3.50	30.00	60.00	---	---	---	---	25.00	55.00
28: Brifox-----	4e	6e	1.00	2.50	30.00	60.00	---	---	---	---	25.00	55.00
Niter-----	4e	6e	0.75	2.50	30.00	60.00	---	---	---	---	25.00	55.00
29: Brifox-----	6e	6e	0.50	1.50	25.00	55.00	---	---	---	---	20.00	50.00
Niter-----	6e	6e	0.50	1.50	25.00	55.00	---	---	---	---	20.00	50.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
30:												
Broadhead-----	4e	---	---	---	---	---	---	---	---	---	---	---
Hades-----	4e	---	---	---	---	---	---	---	---	---	---	---
Yago-----	7s	---	---	---	---	---	---	---	---	---	---	---
31:												
Broadhead-----	4e	---	---	---	---	---	---	---	---	---	---	---
Yago-----	7s	---	---	---	---	---	---	---	---	---	---	---
32:												
Camelback-----	6e	---	---	---	---	---	---	---	---	---	---	---
Lonigan-----	7e	---	---	---	---	---	---	---	---	---	---	---
33:												
Camelback-----	6e	---	---	---	---	---	---	---	---	---	---	---
Hades-----	6e	---	---	---	---	---	---	---	---	---	---	---
Valmar-----	6e	---	---	---	---	---	---	---	---	---	---	---
34:												
Cedarhill-----	4e	---	1.50	---	30.00	---	1.00	---	---	---	25.00	---
35:												
Cedarhill-----	6e	---	---	---	---	---	---	---	---	---	---	---
Hades-----	7e	---	---	---	---	---	---	---	---	---	---	---
Ricrest-----	7e	---	---	---	---	---	---	---	---	---	---	---
36:												
Cedarhill-----	6e	---	---	---	---	---	---	---	---	---	---	---
Hondoho-----	7e	---	---	---	---	---	---	---	---	---	---	---
Ridgecrest----	7s	---	---	---	---	---	---	---	---	---	---	---
37:												
Chesbrook-----	5w	5w	---	---	---	---	3.00	4.00	4.50	6.00	---	---
Bear Lake-----	5w	5w	---	---	---	---	3.00	4.00	4.50	6.00	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
38:												
Cloudless-----	3e	---	1.50	---	30.00	---	1.50	---	---	---	25.00	---
Hades-----	4e	---	1.50	---	30.00	---	1.50	---	---	---	30.00	---
39:												
Cloudless-----	4e	---	1.50	---	30.00	---	1.50	---	---	---	25.00	---
Hades-----	4e	---	1.50	---	30.00	---	1.50	---	---	---	30.00	---
Howcan-----	4e	---	1.00	---	30.00	---	1.00	---	---	---	25.00	---
40:												
Copenhagen----	7e	---	---	---	---	---	---	---	---	---	---	---
Lonigan-----	6e	---	---	---	---	---	---	---	---	---	---	---
Manila-----	6e	---	---	---	---	---	---	---	---	---	---	---
41:												
Delish-----	3w	3w	---	---	---	---	2.00	5.00	2.50	5.00	---	---
Cachecan-----	3w	3w	---	---	---	---	1.50	4.50	1.50	5.00	---	---
Stinkcreek----	5w	5w	---	---	---	---	2.00	3.50	4.50	6.00	---	---
42:												
Downata-----	5w	5w	---	---	---	---	---	---	7.50	10.00	---	---
43:												
Dranburn-----	6e	---	---	---	---	---	---	---	---	---	---	---
Robin-----	6e	---	---	---	---	---	---	---	---	---	---	---
44:												
Enochville----	5w	---	---	---	---	---	---	---	---	---	---	---
45:												
Foxol-----	7s	---	---	---	---	---	---	---	---	---	---	---
Vitale-----	6s	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
46:												
Hades-----	4e	---	---	---	---	---	---	---	---	---	---	---
Camelback-----	7e	---	---	---	---	---	---	---	---	---	---	---
Hondoho-----	7e	---	---	---	---	---	---	---	---	---	---	---
47:												
Hades-----	7e	---	---	---	---	---	---	---	---	---	---	---
Lanoak-----	7e	---	---	---	---	---	---	---	---	---	---	---
Camelback-----	7e	---	---	---	---	---	---	---	---	---	---	---
48:												
Haploxerolls--	6s	---	---	---	---	---	---	---	---	---	---	---
Xerorthents---	7e	---	---	---	---	---	---	---	---	---	---	---
49:												
Hendricks-----	3e	3e	---	5.00	---	75.00	---	---	---	---	---	35.00
50:												
Holmes-----	3c	3c	---	---	---	---	1.00	3.50	1.00	4.00	---	---
51:												
Hondee-----	2c	2s	1.00	3.50	35.00	70.00	1.00	3.00	1.00	2.50	25.00	65.00
52:												
Hondee-----	3e	---	---	---	35.00	---	---	---	---	---	25.00	---
53:												
Hondoho-----	4e	---	1.50	---	20.00	---	---	---	---	---	17.00	---
Hades-----	4e	---	1.50	---	30.00	---	---	---	---	---	30.00	---
54:												
Hondoho-----	3e	4e	1.00	3.50	35.00	90.00	1.50	3.50	2.00	3.50	30.00	75.00
Ricrest-----	3e	3e	1.00	3.50	40.00	65.00	1.00	3.50	1.50	4.00	35.00	60.00



Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
55:												
Hondoho-----	6e	---	---	---	---	---	---	---	---	---	---	---
Sprollo-----	7s	---	---	---	---	---	---	---	---	---	---	---
Hades-----	4e	---	---	---	---	---	---	---	---	---	---	---
56:												
Hondoho-----	6e	---	---	---	---	---	---	---	---	---	---	---
Vitale-----	6s	---	---	---	---	---	---	---	---	---	---	---
57:												
Huffman-----	3e	---	---	---	40.00	---	---	---	---	---	40.00	---
58:												
Huffman-----	3e	---	---	---	35.00	---	---	---	---	---	27.00	---
59:												
Huffman-----	3e	---	---	---	35.00	---	---	---	---	---	27.00	---
Dirtyhead-----	3e	---	---	---	35.00	---	---	---	---	---	27.00	---
60:												
Huffman-----	3e	---	---	---	35.00	---	---	---	---	---	27.00	---
Harroun-----	7e	---	---	---	20.00	---	---	---	---	---	10.00	---
Lanoak-----	3e	---	---	---	45.00	---	---	---	---	---	38.00	---
61:												
Huffman-----	3e	---	---	---	35.00	---	---	---	---	---	27.00	---
Wursten-----	3e	---	---	---	30.00	---	---	---	---	---	25.00	---
62:												
Iphil-----	4e	---	2.00	---	30.00	---	1.50	---	1.00	---	25.00	---
Lonigan-----	3e	---	1.50	---	35.00	---	1.50	---	1.00	---	30.00	---
63:												
Ireland-----	7s	---	---	---	---	---	---	---	---	---	---	---
Polumar-----	7s	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
64:												
Kabear-----	3e	---	2.00	---	35.00	---	2.00	---	1.50	---	40.00	---
Staberg-----	3e	---	1.00	---	40.00	---	1.00	---	1.00	---	40.00	---
Copenhagen----	7e	---	1.00	---	40.00	---	1.00	---	1.00	---	40.00	---
65:												
Kabear-----	4e	---	1.50	---	30.00	---	1.50	---	1.00	---	35.00	---
Staberg-----	4e	---	1.00	---	40.00	---	1.00	---	1.00	---	40.00	---
Copenhagen----	7e	---	1.00	---	40.00	---	1.00	---	1.00	---	40.00	---
66:												
Kearns-----	3c	2c	---	4.00	---	70.00	---	4.00	---	3.00	---	55.00
67:												
Kearnsar-----	3c	2c	---	4.00	---	90.00	---	4.00	---	4.50	---	80.00
Battle Creek--	3e	3e	---	4.00	---	85.00	---	4.00	---	4.00	---	70.00
68:												
Kidman-----	3c	2c	---	6.00	---	100.00	---	5.50	---	5.00	---	85.00
69:												
Kidman-----	3e	2e	---	5.50	---	100.00	---	5.50	---	5.00	---	85.00
70:												
Kidman-----	6e	6e	---	---	---	---	---	---	0.50	3.00	---	---
71:												
Kidman, wet---	3c	2c	1.25	5.50	40.00	100.00	1.50	3.50	1.00	5.00	35.00	90.00
72:												
Kidman-----	3c	2c	---	6.00	---	100.00	---	5.50	---	5.00	---	85.00
Sterling-----	2s	2s	---	2.75	---	65.00	---	3.50	---	3.00	---	60.00
73:												
Lando-----	3c	2e	---	4.00	---	70.00	---	5.00	---	9.00	---	65.00
74:												
Lanoak-----	3c	3c	2.00	4.50	45.00	90.00	2.00	4.50	1.50	4.00	38.00	80.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
75: Lanoak-----	3e	4e	2.00	4.00	45.00	90.00	2.00	4.00	1.50	4.00	38.00	80.00
76: Lanoak-----	4e	---	---	---	42.00	---	---	---	---	---	35.00	---
Broadhead----	4e	---	---	---	33.00	---	---	---	---	---	28.00	---
77: Lanoak-----	7e	---	---	---	---	---	---	---	---	---	---	---
Broadhead----	7e	---	---	---	---	---	---	---	---	---	---	---
Hades-----	7e	---	---	---	---	---	---	---	---	---	---	---
78: Lanoak-----	3e	---	---	---	45.00	---	---	---	---	---	38.00	---
Hades-----	4e	---	---	---	30.00	---	---	---	---	---	30.00	---
79: Lanoak-----	4e	---	---	---	42.00	---	---	---	---	---	35.00	---
Thatcher-----	6e	---	---	---	30.00	---	---	---	---	---	25.00	---
80: Layton-----	3e	3e	1.00	4.50	20.00	75.00	1.00	5.00	1.00	5.00	20.00	70.00
81: Layton-----	3s	3s	1.00	4.50	30.00	85.00	1.50	5.00	1.00	5.00	25.00	80.00
82: Lizdale-----	7s	---	---	---	---	---	---	---	---	---	---	---
83: Lizdale-----	4e	---	---	---	---	---	---	---	---	---	---	---
Searla-----	4e	---	---	---	---	---	---	---	---	---	---	---
84: Logan-----	5w	5w	3.00	4.00	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
85: Lonigan-----	6e	---	---	---	---	---	---	---	---	---	---	---
Lizdale-----	3e	---	---	---	---	---	---	---	---	---	---	---
86: Lonigan-----	7e	---	---	---	---	---	---	---	---	---	---	---
Ricrest-----	7e	---	---	---	---	---	---	---	---	---	---	---
87: Manila-----	3e	---	---	---	40.00	---	---	---	---	---	35.00	---
88: Manila-----	3e	3e	1.00	3.50	40.00	90.00	1.00	4.00	---	---	40.00	85.00
89: Manila-----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
90: Manila-----	3e	---	---	---	40.00	---	---	---	---	---	35.00	---
Bancroft-----	3e	---	---	---	35.00	---	---	---	---	---	30.00	---
91: Manila-----	3e	---	---	---	40.00	---	---	---	---	---	35.00	---
Broadhead-----	3e	---	---	---	33.00	---	---	---	---	---	28.00	---
92: Manila-----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
Broadhead-----	4e	---	---	---	33.00	---	---	---	---	---	28.00	---
93: Manila-----	4e	---	---	---	---	---	---	---	---	---	---	---
Lonigan-----	4e	---	---	---	---	---	---	---	---	---	---	---
94: Manila-----	3e	---	1.00	---	40.00	---	1.00	---	---	---	40.00	---
Yeates Hollow	4e	---	1.00	---	40.00	---	1.00	---	---	---	40.00	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
95: Maplecreek----	3w	3w	1.50	4.00	30.00	75.00	2.00	5.00	2.00	6.00	25.00	70.00
96: Maplecreek----	3w	3w	1.50	4.00	30.00	75.00	2.00	5.00	2.00	6.00	25.00	70.00
Layton-----	3e	3e	1.00	4.50	20.00	75.00	1.00	5.00	1.00	5.00	20.00	70.00
97: Merkley-----	3c	3c	1.50	4.00	40.00	60.00	1.50	4.00	1.00	6.00	35.00	50.00
Lago-----	4w	4w	1.50	4.00	40.00	55.00	2.50	4.00	4.00	5.50	35.00	45.00
Bear Lake-----	5w	5w	1.50	4.00	40.00	55.00	3.00	4.00	4.50	6.00	35.00	45.00
98: Moonlight-----	7e	---	---	---	---	---	---	---	---	---	---	---
Camelback-----	7e	---	---	---	---	---	---	---	---	---	---	---
99: Niter-----	3c	3e	---	4.50	---	70.00	---	---	---	---	---	65.00
Brifox-----	3c	3e	---	4.50	---	70.00	---	---	---	---	---	65.00
100: Northwater----	7e	---	---	---	---	---	---	---	---	---	---	---
Foxol-----	7s	---	---	---	---	---	---	---	---	---	---	---
Vitale-----	7e	---	---	---	---	---	---	---	---	---	---	---
101: Northwater----	4e	---	---	---	---	---	---	---	---	---	---	---
Povey-----	6e	---	---	---	---	---	---	---	---	---	---	---
102: Northwater----	7e	---	---	---	---	---	---	---	---	---	---	---
Povey-----	7e	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
103:												
Nyman-----	7e	---	---	---	---	---	---	---	---	---	---	---
Lonigan-----	7e	---	---	---	---	---	---	---	---	---	---	---
Copenhagen----	7e	---	---	---	---	---	---	---	---	---	---	---
104:												
Oxford-----	3e	3e	2.00	4.50	35.00	70.00	1.50	3.50	---	---	30.00	70.00
Banida-----	3e	3e	1.50	2.50	35.00	80.00	1.50	3.50	---	---	30.00	70.00
105:												
Oxford-----	3e	---	1.50	---	30.00	---	1.00	---	---	---	25.00	---
Banida-----	3e	---	1.00	---	30.00	---	1.00	---	---	---	25.00	---
106:												
Oxford-----	4e	---	1.00	---	25.00	---	1.00	---	---	---	20.00	---
Banida-----	4e	---	1.00	---	25.00	---	1.00	---	---	---	20.00	---
107:												
Oxford-----	7e	---	---	---	---	---	---	---	---	---	---	---
Gullied land.												
108:												
Parkay-----	7e	---	---	---	---	---	---	---	---	---	---	---
Povey-----	7e	---	---	---	---	---	---	---	---	---	---	---
109:												
Parleys-----	3e	2e	2.00	5.00	50.00	100.00	1.50	4.50	1.00	5.00	40.00	80.00
110:												
Parleys-----	3e	3e	2.00	4.50	45.00	95.00	1.50	4.50	1.00	4.50	35.00	70.00
111:												
Parleys, wet--	3c	2c	2.50	4.00	40.00	75.00	2.50	4.25	1.00	4.50	40.00	70.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
112:												
Pavohroo-----	7e	---	---	---	---	---	---	---	---	---	---	---
Sedgway-----	7e	---	---	---	---	---	---	---	---	---	---	---
Toponce-----	6e	---	---	---	---	---	---	---	---	---	---	---
113:												
Picabo-----	3w	3w	---	---	---	65.00	---	---	2.00	5.00	---	55.00
Thatcherflats	4s	4s	---	---	---	20.00	---	---	1.00	2.00	---	15.00
114:												
Pits, gravel.												
115:												
Pollynot-----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
116:												
Pollynot-----	3c	2c	2.00	6.00	45.00	100.00	---	---	---	---	40.00	85.00
117:												
Pollynot-----	3c	3e	2.00	6.00	45.00	100.00	---	---	---	---	40.00	80.00
118:												
Pollynot-----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
119:												
Polumar-----	7s	---	---	---	---	---	---	---	---	---	---	---
Ireland-----	7s	---	---	---	---	---	---	---	---	---	---	---
120:												
Polumar-----	7s	---	---	---	---	---	---	---	---	---	---	---
Sprollo-----	7s	---	---	---	---	---	---	---	---	---	---	---
Ireland-----	7s	---	---	---	---	---	---	---	---	---	---	---
121:												
Povey-----	6e	---	---	---	---	---	---	---	---	---	---	---
Hades-----	6e	---	---	---	---	---	---	---	---	---	---	---
Hondoho-----	6e	---	---	---	---	---	---	---	---	---	---	---



Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
122: Povey-----	7e	---	---	---	---	---	---	---	---	---	---	---
Parkay-----	7e	---	---	---	---	---	---	---	---	---	---	---
123: Preston-----	4s	4s	0.50	3.50	20.00	85.00	0.75	3.75	0.75	4.50	15.00	70.00
124: Preston-----	4s	4e	0.50	3.50	15.00	75.00	0.75	3.75	0.75	4.50	10.00	60.00
125: Preston-----	4e	6e	0.50	3.50	10.00	70.00	0.50	3.25	0.50	3.50	5.00	55.00
126: Preston-----	7e	---	---	---	---	---	---	---	0.50	---	---	---
Xerorthents---	7e	---	---	---	---	---	---	---	0.50	---	---	---
127: Ricrest-----	3e	---	---	---	40.00	---	---	---	---	---	35.00	---
128: Sanyon-----	7e	---	---	---	15.00	---	---	---	---	---	10.00	---
Staberg-----	7e	---	---	---	25.00	---	---	---	---	---	20.00	---
Kabear-----	7e	---	---	---	25.00	---	---	---	---	---	20.00	---
129: Smidale-----	7e	---	---	---	---	---	---	---	---	---	---	---
130: Smidale-----	7e	---	---	---	---	---	---	---	---	---	---	---
Staberg-----	6e	---	---	---	---	---	---	---	---	---	---	---
131: Sprollo-----	7s	---	---	---	---	---	---	---	---	---	---	---
Hondoho-----	7e	---	---	---	---	---	---	---	---	---	---	---
132: Sprollo-----	7s	---	---	---	---	---	---	---	---	---	---	---
Hymas-----	7s	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
133: Sterling-----	2e	2e	1.00	2.75	30.00	65.00	---	---	1.00	3.50	30.00	60.00
134: Sterling-----	2e	3e	1.00	2.50	20.00	50.00	---	---	0.75	2.50	20.00	50.00
135: Sterling-----	6s	---	---	---	20.00	---	---	---	---	---	20.00	---
136: Sterling-----	7e	---	---	---	---	---	---	---	---	---	---	---
137: Sterling-----	2e	2e	1.00	2.75	30.00	65.00	---	---	1.00	5.00	30.00	60.00
Parleys-----	3e	2e	1.00	5.00	50.00	100.00	---	---	1.00	5.00	40.00	80.00
138: Thatcher-----	6e	---	---	---	30.00	---	---	---	---	---	25.00	---
Bearhollow----	6e	---	---	---	30.00	---	---	---	---	---	25.00	---
139: Toponce-----	4e	---	---	---	30.00	---	---	---	---	---	25.00	---
Broadhead-----	4e	---	---	---	33.00	---	---	---	---	---	28.00	---
140: Trenton-----	3s	3s	1.00	3.50	---	60.00	1.25	4.00	1.25	3.50	---	55.00
Battle Creek--	3s	3s	1.00	4.00	---	85.00	1.50	4.00	1.50	4.00	---	75.00
141: Trenton, cool	3s	3s	1.00	3.50	---	60.00	1.25	4.00	1.25	3.50	---	55.00
Battle Creek, cool-----	3s	3s	1.00	4.00	---	85.00	1.50	4.00	1.50	4.00	---	75.00
142: Trenton-----	3s	3s	1.00	3.50	---	60.00	1.25	4.00	1.25	3.50	---	55.00
Parleys-----	3c	2c	2.50	4.00	---	75.00	2.50	4.25	1.50	4.00	---	70.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
143:												
Valmar-----	7e	---	---	---	---	---	---	---	---	---	---	---
Camelback-----	7e	---	---	---	---	---	---	---	---	---	---	---
Hades-----	7e	---	---	---	---	---	---	---	---	---	---	---
144:												
Vitale-----	7e	---	---	---	---	---	---	---	---	---	---	---
Bergquist-----	7e	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop.												
145:												
Vitale-----	7s	---	---	---	---	---	---	---	---	---	---	---
Yeates Hollow	4e	---	---	---	---	---	---	---	---	---	---	---
Northwater----	6e	---	---	---	---	---	---	---	---	---	---	---
146:												
Welby-----	3c	2c	2.00	4.00	35.00	80.00	2.00	4.50	1.50	4.50	30.00	70.00
147:												
Welby-----	3c	2c	2.00	4.00	35.00	80.00	2.00	4.50	1.50	4.50	30.00	70.00
148:												
Welby, wet----	3c	2c	1.50	4.00	35.00	75.00	2.00	4.50	1.00	4.50	30.00	65.00
149:												
Collinston----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
Wheelon-----	3e	---	---	---	25.00	---	---	---	---	---	25.00	---
150:												
Wheelon-----	4e	---	---	---	15.00	---	---	---	---	---	15.00	---
Collinston----	4e	---	---	---	35.00	---	---	---	---	---	30.00	---
151:												
Wheelon-----	7e	---	---	---	---	---	---	---	---	---	---	---
Collinston----	7e	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			Tons	Tons	Bu	Bu	Tons	Tons	AUM	AUM	Bu	Bu
152:												
Windernot-----	3s	3s	1.50	4.00	---	95.00	1.50	3.50	2.00	4.00	---	75.00
Lewnot-----	3w	3w	1.50	4.00	---	90.00	1.50	3.00	3.00	7.00	---	80.00
Stinkcreek----	5w	5w	1.00	3.50	---	60.00	2.00	3.50	4.50	6.00	---	50.00
153:												
Winn-----	3w	3w	---	---	---	70.00	---	---	---	---	---	60.00
154:												
Winwell-----	2c	2c	2.00	5.50	50.00	110.00	---	---	---	---	45.00	95.00
155:												
Winwell-----	2e	3e	2.00	5.00	45.00	100.00	---	---	---	---	40.00	90.00
Collinston----	3e	3e	2.00	5.00	35.00	90.00	---	---	---	---	30.00	80.00
156:												
Wormcreek-----	6e	---	---	---	---	---	---	---	---	---	---	---
Copenhagen----	7e	---	---	---	---	---	---	---	---	---	---	---
157:												
Wormcreek-----	6e	---	---	---	25.00	---	---	---	---	---	20.00	---
Lonigan-----	6e	---	---	---	25.00	---	---	---	---	---	20.00	---
158:												
Wursten-----	4e	---	---	---	---	---	---	---	---	---	---	---
Dirtyhead-----	4e	---	---	---	---	---	---	---	---	---	---	---
159:												
Xerochrepts---	6e	---	---	---	---	---	---	---	---	---	---	---
Wormcreek-----	7e	---	---	---	---	---	---	---	---	---	---	---
Xerorthents---	7e	---	---	---	---	---	---	---	---	---	---	---
160:												
Xerorthents---	7e	---	---	---	---	---	---	---	---	---	---	---
161:												
Yeates Hollow	7s	---	---	---	---	---	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay		Barley		Grass-legume hay		Pasture		Wheat	
	N	I	N	I	N	I	N	I	N	I	N	I
			<i>Tons</i>	<i>Tons</i>	<i>Bu</i>	<i>Bu</i>	<i>Tons</i>	<i>Tons</i>	<i>AUM</i>	<i>AUM</i>	<i>Bu</i>	<i>Bu</i>
162:												
Yeates Hollow	4e	---	---	---	---	---	---	---	---	---	---	---
Manila-----	4e	---	---	---	---	---	---	---	---	---	---	---
Softback-----	6s	---	---	---	---	---	---	---	---	---	---	---
163:												
Yeates Hollow	7s	---	---	---	---	---	---	---	---	---	---	---
Vitale-----	7s	---	---	---	---	---	---	---	---	---	---	---
164:												
Water.												

Table 6.--Rangeland Productivity and Characteristic Plant Communities  
(Only the soils that support rangeland vegetation suitable for grazing are rated.)

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
1: Airport-----	Semiwet Saline Meadow (R028AY001ID)	2,500	1,750	1,000	Alkali sacaton----- Inland saltgrass----- Black greasewood----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Rush-----	20 20 5 5 5 5 5
13: Bear Lake-----	Wet Meadow (R013XY038ID)	4,500	3,600	3,000	Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 5 5 5 5 5 5
Chesbrook-----	Wet Meadow (R013XY038ID)	4,500	3,600	3,000	Tufted hairgrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	20 5 5 5 5
Picabo-----	Semiwet Meadow (R028AY029ID)	3,000	2,200	1,400	Tufted hairgrass----- Slender wheatgrass----- Baltic rush----- Cinquefoil----- Clover----- Shrubby cinquefoil-----	15 10 5 5 5 5
14: Bear Lake-----	Wet Meadow (R028AY028ID)	4,500	3,600	3,000	Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 5 5 5 5 5 5
Downata-----	Marsh Scac/tyla (R028AY030ID)	5,300	4,500	3,800	Broadleaf cattail----- Hardstem bulrush-----	45 45

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
15: Bear Lake-----	Wet Meadow (R028AY028ID)	4,500	3,600	3,000	Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 5 5 5 5 5 5
Downata-----	Marsh Scac/tyla (R028AY030ID)	5,300	4,500	3,800	Broadleaf cattail----- Hardstem bulrush-----	45 45
Thatcherflats-----	Alkali Flats 8-12 Save4/ele15 (R028AY011ID)	500	300	100	Bottlebrush squirreltail----- Black greasewood----- Gardner saltbush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	40 30 5 5 5 5
16: Bear Lake-----	Wet Meadow (R013XY038ID)	4,500	3,600	3,000	Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 5 5 5 5 5 5
Lago-----	Semiwet Meadow (R013XY039ID)	3,400	2,600	2,000	Slender wheatgrass----- Tufted hairgrass----- Baltic rush----- Cinquefoil----- Fowl bluegrass-----	20 15 5 5 5
17: Bearhollow-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,600	1,300	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Prairie junegrass----- Common snowberry----- Geranium----- Miscellaneous shrubs----- Rabbitbrush-----	20 20 15 10 10 5 5 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
17: Brifox-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,600	1,300	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Prairie junegrass----- Common snowberry----- Geranium----- Miscellaneous shrubs----- Rabbitbrush-----	25 20 15 10 10 5 5 5 5
Iphil-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Prairie junegrass----- Slender wheatgrass----- Snowberry----- Western yarrow-----	30 10 5 5 5 5 5 5 5
18: Bergquist-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	550	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Miscellaneous shrubs----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot-----	25 20 20 10 10 5 5 5
19: Bergquist-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,900	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Nevada bluegrass----- Common chokecherry----- Snowberry-----	10 10 10 10 10 10 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
19: Softback-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	3,100	2,700	2,400	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses	10 10 10 10 10 5 5 5
20: Bergquist-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,900	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Nevada bluegrass----- Common chokecherry----- Snowberry-----	10 10 10 10 10 10 5 5 5
Vitale-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 10 5 5 5 5 2
23: Bothwell-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,500	1,200	900	Bluebunch wheatgrass----- Arrowleaf balsamroot----- Mountain big sagebrush----- Antelope bitterbrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass----- Snowberry----- Sticky geranium-----	35 10 10 5 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
23: Hades-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
Justesen-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,900	1,400	700	Bluebunch wheatgrass----- Mountain big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Snowberry-----	35 10 5 5 5 5 5
26: Brifox-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,600	1,300	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Prairie junegrass----- Common snowberry----- Geranium----- Miscellaneous shrubs----- Rabbitbrush-----	25 20 15 10 10 5 5 5 5
Huffman-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,100	1,700	1,300	Bluebunch wheatgrass----- Miscellaneous perennial grasses Columbia needlegrass----- Arrowleaf balsamroot----- Geranium----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	40 15 10 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
29: Brifox-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,600	1,300	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Prairie junegrass----- Common snowberry----- Geranium----- Miscellaneous shrubs----- Rabbitbrush-----	25 20 15 10 10 5 5 5 5
Niter-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,700	1,500	1,100	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Prairie junegrass----- Common snowberry----- Geranium----- Miscellaneous shrubs----- Rabbitbrush-----	25 20 15 10 10 5 5 5 5
30: Broadhead-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Miscellaneous perennial grasses Columbia needlegrass----- Arrowleaf balsamroot----- Geranium----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	40 15 10 5 5 5 5 5 5 5
Hades-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
30: Yago-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Miscellaneous perennial forbs-- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Mountain big sagebrush----- Mountain brome----- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	35 15 5 5 5 5 5 5 5 5 5
31: Broadhead-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Miscellaneous perennial grasses Columbia needlegrass----- Arrowleaf balsamroot----- Geranium----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	40 15 10 5 5 5 5 5 5 5
Yago-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Miscellaneous perennial forbs-- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Mountain big sagebrush----- Mountain brome----- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	35 15 5 5 5 5 5 5 5 5
32: Camelback-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Prairie junegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Helianthella----- Western wheatgrass-----	30 20 10 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
32: Lonigan-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Western wheatgrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Longleaf hawksbeard-----	30 20 10 5 5 5 5 5
33: Camelback-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Kentucky bluegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	25 10 10 10 5 5 5 5 5 5 5 5
Hades-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
Valmar-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Lupine----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	20 15 15 5 5 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
34: Cedarhill-----	Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Western wheatgrass----- Nevada bluegrass----- Nevada bluegrass----- Arrowleaf balsamroot----- Aster----- Cutleaf balsamroot----- Prairie junegrass-----	35 10 10 5 5 5 5 5 5
35: Cedarhill-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous shrubs----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Slender wheatgrass----- Western wheatgrass-----	25 20 10 10 5 5 5 5 5 5
Hades-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
Ricrest-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,300	850	Bluebunch wheatgrass----- Mountain big sagebrush----- Idaho fescue----- Miscellaneous perennial grasses Western snowberry----- Nevada bluegrass----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Sticky geranium-----	25 15 10 10 10 5 5 5 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
36: Cedarhill-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous shrubs----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Slender wheatgrass----- Western wheatgrass-----	25 20 10 10 5 5 5 5 5 5
Hondoho-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous shrubs----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Prairie junegrass-----	30 10 10 10 5 5 5 5 5
Ridgecrest-----	Steep Stony 12-16 Artrv/pssp6 (R013XY026ID)	1,400	1,100	750	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous shrubs----- Idaho fescue----- Antelope bitterbrush----- Lupine----- Needlegrass----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Slender wheatgrass----- Sticky geranium----- Western snowberry-----	15 10 10 5 5 5 5 5 5 5 5
37: Chesbrook-----	Wet Meadow (R013XY038ID)	4,500	3,600	3,000	Tufted hairgrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	20 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
37: Bear Lake-----	Wet Meadow (R013XY038ID)	4,500	3,600	3,000	Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 5 5 5 5 5 5
39: Cloudless-----	Loamy 12-16 Artrt/pssp6 (R013XY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Helianthella----- Miscellaneous perennial grasses	35 15 5 5 5 5
Hades-----	Loamy 12-16 Artrt/pssp6 (R013XY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Helianthella----- Miscellaneous perennial grasses	35 15 5 5 5 5
Howcan-----	Loamy 12-16 Artrt/pssp6 (R013XY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Kentucky bluegrass----- Nevada bluegrass----- Arrowleaf balsamroot----- Snowberry-----	35 15 5 5 5 5
40: Copenhagen-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	850	650	350	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Longleaf hawksbeard-----	30 20 5 5 5 5 5
Lonigan-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,400	1,000	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Arrowleaf balsamroot----- Antelope bitterbrush-----	25 20 10 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
40: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,200	1,700	1,000	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Sticky geranium-----	30 10 5 5 5 5 5 5 5
41: Delish-----	Semiwet Meadow (R028AY029ID)	4,000	2,250	1,500	Slender wheatgrass----- Clover----- Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Western wheatgrass-----	20 10 10 5 5 5
Cachecan-----	Semiwet Meadow (R028AY029ID)	4,000	2,250	1,600	Slender wheatgrass----- Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Shrubby cinquefoil----- Western wheatgrass----- Willow-----	20 10 5 5 5 5 5 5
Stinkcreek-----	Wet Meadow (R028AY028ID)	4,500	3,600	2,500	Tufted hairgrass----- Cinquefoil----- Clover-----	20 5 5
42: Downata-----	Marsh Scac/tyla (R028AY030ID)	5,300	4,500	3,800	Broadleaf cattail----- Hardstem bulrush-----	45 45
43: Dranburn-----	Loamy Mountain Slopes 16- 22 Acgl/brca5 (R013XY020ID)	2,500	1,800	1,000	Rocky Mountain maple----- Quaking aspen----- Common chokecherry----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Blue wildrye----- Miscellaneous perennial grasses Sticky geranium-----	15 15 10 10 10 10 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
43: Robin-----	High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)	3,100	2,700	2,400	Bigtooth maple----- Mallow ninebark----- Miscellaneous perennial forbs-- Whortleleaf snowberry----- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 10 10 10 5 5
44: Enochville-----	Semiwet Meadow (R013XY039ID)	3,500	2,300	1,500	Slender wheatgrass----- Miscellaneous perennial forbs-- Kentucky bluegrass----- Nevada bluegrass----- Bluebunch wheatgrass----- Clover----- Miscellaneous perennial grasses Miscellaneous shrubs----- Western wheatgrass----- Willow-----	15 10 5 5 5 5 5 5 5 5
45: Foxol-----	Shallow Stony 12-16 Arar8/pssp6 (R013XY014ID)	1,000	600	300	Bluebunch wheatgrass----- Nevada bluegrass----- Black sagebrush----- Low sagebrush----- Arrowleaf balsamroot----- Bottlebrush squirreltail----- Dwarf green rabbitbrush----- Longleaf hawksbeard----- Snowberry-----	35 10 10 10 5 5 5 5 5
Vitale-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 20 5 5 5 5 2

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
46: Hades-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
Camelback-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Kentucky bluegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	25 10 10 10 5 5 5 5 5 5 5 5
Hondoho-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous shrubs----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Prairie junegrass-----	30 10 10 10 5 5 5 5 5
47: Hades-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
47: Lanoak-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Miscellaneous perennial grasses----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Western snowberry----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Sticky geranium-----	25 20 10 10 10 5 5 5 5 5
Camelback-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses----- Kentucky bluegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	25 10 10 10 5 5 5 5 5 5 5 5
48: Haploxerolls-----	Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)	1,350	1,000	450	Basin big sagebrush----- Bluebunch wheatgrass----- Idaho fescue----- Nevada bluegrass----- Arrowleaf balsamroot----- Longleaf hawksbeard-----	20 20 5 5 5 5
Xerorthents-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	550	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Longleaf hawksbeard----- Sticky geranium----- Thickspike wheatgrass-----	20 20 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
50: Holmes-----	Riverbottom (R028AY020ID)	2,000	1,500	1,200	Cottonwood----- Willow----- Bluebunch wheatgrass----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	15 15 10 5 5 5
51: Hondee-----	Loamy 11-13 Artrt/pssp6 (R028AY024ID)	1,600	1,000	700	Bluebunch wheatgrass----- Basin big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	45 20 5 5 5 5 5
52: Hondee-----	Loamy 11-13 Artrt/pssp6 (R028AY024ID)	1,600	1,000	700	Bluebunch wheatgrass----- Basin big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	45 20 5 5 5 5 5
53: Hondoho-----	Stony Loam 13-16 Artrv/pssp6 13-16" (R013XY002ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Antelope bitterbrush----- Arrowleaf balsamroot----- Lupine----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass-----	30 10 10 5 5 5 5 5 5
Hades-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
54: Hondoho-----	Loamy 12-16 Artrt/pssp6 (R013XY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Prairie junegrass-----	35 15 10 5 5 5 5 5
Ricrest-----	Loamy 12-16 Artrt/pssp6 (R013XY032ID)	2,000	1,300	800	Bluebunch wheatgrass----- Basin big sagebrush----- Miscellaneous perennial grasses Western snowberry----- Nevada bluegrass----- Arrowleaf balsamroot----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous shrubs-----	30 15 15 10 5 5 5 5 5
55: Hondoho-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,400	900	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	25 20 5 5 5 5 5 5
Sprollo-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 10 5 5 5 5 2

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
55: Hades-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
56: Hondoho-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,400	900	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	25 20 5 5 5 5 5 5
Vitale-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Snowberry----- Longleaf hawksbeard----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass----- Antelope bitterbrush-----	20 10 5 5 5 5 2 2 2 2 0
61: Huffman-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,600	1,100	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Miscellaneous perennial forbs-- Prairie junegrass----- Common snowberry----- Geranium----- Miscellaneous shrubs----- Rabbitbrush-----	25 20 15 10 10 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name composition	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland
		Favorable	Normal	Unfavorable		
		year	year	year		
		Lb/acre	Lb/acre	Lb/acre		Pct
61: Wursten-----	Loamy 12-16 Artrt/pssp6 (R013XY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Prairie junegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Helianthella----- Longleaf hawksbeard-----	35 20 10 5 5 5 5
62: Iphil-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,800	1,200	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Arrowleaf balsamroot----- Antelope bitterbrush----- Longleaf hawksbeard----- Prairie junegrass----- Slender wheatgrass----- Snowberry----- Western yarrow-----	30 20 10 5 5 5 5 5 5
Lonigan-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Western wheatgrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Longleaf hawksbeard-----	30 20 10 5 5 5 5 5
63: Ireland-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Snowberry----- Longleaf hawksbeard----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass-----	20 10 5 5 2 2 2 2

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
63: Polumar-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	850	Bluebunch wheatgrass----- Mountain big sagebrush----- Snowberry----- Nevada bluegrass----- Common chokecherry----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Sticky geranium----- Western wheatgrass-----	25 15 10 5 5 5 5 5 5 5
64: Kabear-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Slender wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Mountain brome----- Snowberry-----	30 10 10 5 5 5 5 5 5
Staberg-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Whortleleaf snowberry-----	35 10 5 5 5 5 5 5 5
Copenhagen-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	850	650	350	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Longleaf hawksbeard-----	30 20 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
65: Kabear-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Slender wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Mountain brome----- Snowberry-----	30 10 10 5 5 5 5 5 5
Staberg-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Whortleleaf snowberry-----	35 10 5 5 5 5 5 5 5
Copenhagen-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	850	650	350	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Longleaf hawksbeard-----	30 20 5 5 5 5 5
70: Kidman-----	Loamy 11-13 Artrt/pssp6 (R028AY024ID)	1,600	900	700	Bluebunch wheatgrass----- Basin big sagebrush----- Arrowleaf balsamroot----- Bottlebrush squirreltail----- Longleaf hawksbeard-----	40 20 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
75: Lanoak-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,500	1,600	1,000	Bluebunch wheatgrass----- Idaho fescue----- Mountain big sagebrush----- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Prairie junegrass----- Sticky geranium----- Western snowberry-----	30 10 10 5 5 5 5 5 5 5 5
76: Lanoak-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,500	1,600	1,000	Bluebunch wheatgrass----- Idaho fescue----- Mountain big sagebrush----- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Prairie junegrass----- Sticky geranium----- Western snowberry-----	30 10 10 5 5 5 5 5 5 5 5
Broadhead-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Miscellaneous perennial grasses Columbia needlegrass----- Arrowleaf balsamroot----- Geranium----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	40 15 10 5 5 5 5 5 5 5
77: Lanoak-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Miscellaneous perennial grasses Mountain big sagebrush----- Miscellaneous perennial forbs-- Western snowberry----- Antelope bitterbrush----- Arrowleaf balsamroot----- Sticky geranium-----	25 20 15 10 10 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
77: Broadhead-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	850	Bluebunch wheatgrass----- Mountain big sagebrush----- Arrowleaf balsamroot----- Geranium----- Miscellaneous perennial grasses Snowberry-----	25 15 5 5 5 5
Hades-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
78: Lanoak-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial grasses Prairie junegrass----- Sticky geranium----- Western snowberry-----	45 10 10 5 5 5 5 5 5 5
Hades-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
79: Lanoak-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,500	1,600	1,000	Bluebunch wheatgrass----- Idaho fescue----- Mountain big sagebrush----- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Prairie junegrass----- Sticky geranium----- Western snowberry-----	30 10 10 5 5 5 5 5 5 5 5
Thatcher-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Sticky geranium----- Nevada bluegrass----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 25 25 5 5 5 5 5
82: Lizdale-----	Gravelly South Slope 12- 16 Artrv/pssp6 (R013XY012ID)	1,500	1,000	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Bottlebrush squirreltail-----	40 15 5 5 5 1
83: Lizdale-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 10 5 5 5 5 2

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
83: Searla-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	900	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Arrowleaf balsamroot----- Nevada bluegrass----- Antelope bitterbrush----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	35 20 10 5 5 5 5 5
84: Logan-----	Wet Meadow (R028AY028ID)	4,500	3,000	2,500	Tufted hairgrass----- Cinquefoil----- Clover-----	20 5 5
85: Lonigan-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,400	1,000	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot-----	25 20 5 5 5
Lizdale-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	2,600	2,000	1,000	Bluebunch wheatgrass----- Arrowleaf balsamroot----- Mountain big sagebrush----- Utah snowberry----- Antelope bitterbrush----- Slender wheatgrass-----	35 10 10 5 5 5
86: Lonigan-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	1,900	1,400	700	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Longleaf hawksbeard----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass-----	30 20 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
86: Ricrest-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,300	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Western snowberry----- Nevada bluegrass----- Arrowleaf balsamroot----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous shrubs-----	30 15 15 10 5 5 5 5 5
88: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Utah snowberry----- Antelope bitterbrush----- Arrowleaf balsamroot----- Slender wheatgrass----- Sticky geranium-----	35 10 5 5 5 5 5 5
89: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,600	2,000	1,200	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Sticky geranium-----	40 10 5 5 5 5 5 5 5
90: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,600	2,000	1,200	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Sticky geranium-----	40 10 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
90: Bancroft-----	Loamy 13-16 Artrv/pssp6 (R013XY001ID)	1,800	1,200	800	Bluebunch wheatgrass----- Miscellaneous perennial grasses----- Arrowleaf balsamroot----- Mountain big sagebrush----- Nevada bluegrass----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	35 15 10 10 5 5 5 5 5
92: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,600	2,000	1,200	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Sticky geranium-----	40 10 5 5 5 5 5 5 5
Broadhead-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Miscellaneous perennial grasses----- Columbia needlegrass----- Arrowleaf balsamroot----- Geranium----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	40 15 10 5 5 5 5 5 5 5
93: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,600	2,000	1,200	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Sticky geranium-----	40 10 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
93: Lonigan-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,400	1,000	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Arrowleaf balsamroot----- Antelope bitterbrush-----	25 20 10 5
94: Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Utah snowberry----- Antelope bitterbrush----- Arrowleaf balsamroot----- Slender wheatgrass----- Sticky geranium-----	35 10 5 5 5 5 5 5
Yeates Hollow-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Cutleaf balsamroot----- Geranium----- Mountain big sagebrush----- Slender wheatgrass-----	40 5 5 5 5 5 5
97: Merkley-----	Loamy Bottom 12-16 Artrt/leci4-Agrop (R013XY045ID)	1,800	1,500	1,200	Basin big sagebrush----- Thickspike wheatgrass----- Bluebunch wheatgrass----- Arrowleaf balsamroot----- Green rabbitbrush----- Longleaf hawksbeard----- Miscellaneous shrubs----- Western wheatgrass-----	20 15 10 5 5 5 5 5
Lago-----	Semiwet Meadow (R013XY039ID)	3,400	2,600	2,000	Slender wheatgrass----- Tufted hairgrass----- Baltic rush----- Cinquefoil----- Fowl bluegrass-----	20 15 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
97: Bear Lake-----	Wet Meadow (R028AY028ID)	4,500	3,600	3,000	Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 5 5 5 5 5 5
98: Moonlight-----	Loamy Mountain Slopes 16- 22 Acgl/brca5 (R013XY020ID)	2,500	1,800	1,000	Rocky Mountain maple----- Quaking aspen----- Common chokecherry----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Blue wildrye----- Miscellaneous perennial grasses Sticky geranium-----	15 15 10 10 10 10 5 5 5
Camelback-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Kentucky bluegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	25 10 10 10 5 5 5 5 5 5 5 5
100: Northwater-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Nevada bluegrass----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses Snowberry----- Western wheatgrass-----	10 10 10 10 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
100: Foxol-----	Shallow Stony 12-16 Arar8/pssp6 (R013XY014ID)	1,000	600	300	Bluebunch wheatgrass----- Nevada bluegrass----- Black sagebrush----- Low sagebrush----- Arrowleaf balsamroot----- Bottlebrush squirreltail----- Dwarf green rabbitbrush----- Longleaf hawksbeard----- Snowberry-----	35 10 10 10 5 5 5 5 5
Vitale-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	850	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Lupine----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 15 5 5 5 5 5 5 5
101: Northwater-----	Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)	500	350	150	Whortleleaf snowberry----- Oregongrape----- Boxleaf myrtle----- Currant----- Mallow ninebark----- Bearded wheatgrass----- Strawberry-----	20 10 10 10 10 5 5
Povey-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,400	1,800	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Slender wheatgrass----- Columbia needlegrass----- Arrowleaf balsamroot----- Snowberry-----	25 15 10 5 5 5
102: Northwater-----	Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)	500	350	150	Whortleleaf snowberry----- Oregongrape----- Boxleaf myrtle----- Currant----- Mallow ninebark----- Bearded wheatgrass----- Strawberry-----	20 10 10 10 10 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
102: Povey-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Rocky Mountain juniper----- Common chokecherry----- Cutleaf balsamroot----- Miscellaneous perennial grasses	10 10 10 10 10 5 5 5 5
103: Nyman-----	High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)	3,100	2,700	2,400	Bigtooth maple----- Mallow ninebark----- Miscellaneous perennial forbs-- Whortleleaf snowberry----- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 10 10 10 5 5
Lonigan-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Western wheatgrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard-----	30 20 10 5 5 5 5
Copenhagen-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,200	800	400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Longleaf hawksbeard-----	30 20 5 5 5 5 5
106: Oxford-----	Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Western wheatgrass-----	35 15 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
106: Banida-----	Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)	1,600	1,000	800	Bluebunch wheatgrass----- Basin big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Western wheatgrass-----	35 20 5 5 5
107: Oxford-----	Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Western wheatgrass-----	35 20 5 5 5
108: Parkay-----	High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)	3,100	2,700	2,400	Bigtooth maple----- Mallow ninebark----- Miscellaneous perennial forbs-- Whortleleaf snowberry----- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 10 10 10 5 5
Povey-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,400	1,800	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Slender wheatgrass----- Columbia needlegrass----- Arrowleaf balsamroot----- Snowberry-----	25 15 10 5 5 5
112: Pavohroo-----	Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)	500	350	150	Whortleleaf snowberry----- Miscellaneous perennial forbs-- Oregongrape----- Woods' rose----- Bearded wheatgrass----- Blue wildrye----- Boxleaf myrtle----- Miscellaneous perennial grasses Miscellaneous shrubs----- Sticky geranium----- Western meadowrue-----	20 10 5 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
112: Sedgway-----	Mountain Loamy 22+ Psmeg/syor2 (R013XY017ID)	500	350	150	Whortleleaf snowberry----- Miscellaneous perennial forbs-- Oregongrape----- Bearded wheatgrass----- Blue wildrye----- Miscellaneous perennial grasses Miscellaneous shrubs-----	20 10 5 5 5 5 5
Toponce-----	Moist Mountain Loam 20+ Potr5 (R013XY016ID)	2,500	1,500	900	Pinegrass----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Elk sedge----- Quaking aspen----- Sticky geranium----- Common snowberry----- Mountain big sagebrush-----	40 10 10 10 4 3 3 2 2
113: Picabo-----	Semiwet Saline Meadow (R028AY001ID)	2,500	1,750	1,000	Saltgrass----- Alkali sacaton----- Black greasewood----- Miscellaneous perennial grasses Tufted hairgrass-----	20 15 5 5 5
Thatcherflats-----	Alkali Flats 8-12 Save4/elel5 (R028AY011ID)	500	300	100	Bottlebrush squirreltail----- Black greasewood----- Gardner saltbush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	40 30 5 5 5 5
119: Polumar-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Nevada bluegrass----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses Snowberry----- Western wheatgrass-----	10 10 10 10 10 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
119: Ireland-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Snowberry----- Longleaf hawksbeard----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass-----	20 10 5 5 2 2 2 2
120: Polumar-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Nevada bluegrass----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses Snowberry----- Western wheatgrass-----	10 10 10 10 10 5 5 5 5 5 5
Sprollo-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Snowberry----- Longleaf hawksbeard----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass----- Antelope bitterbrush-----	20 10 5 5 5 5 2 2 2 2 0
Ireland-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	800	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Snowberry----- Longleaf hawksbeard----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass-----	20 10 5 5 2 2 2 2

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
121: Povey-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses	10 10 10 10 10 5 5 5
Hades-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
Hondoho-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,400	900	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	25 20 5 5 5 5 5 5
122: Povey-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,400	1,800	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Slender wheatgrass----- Columbia needlegrass----- Arrowleaf balsamroot----- Snowberry-----	25 15 10 5 5 5
Parkay-----	High Mountain Loam 25-35 Acsag2/phma5/brca5 (R047XY010ID)	3,100	2,700	2,400	Bigtooth maple----- Mallow ninebark----- Miscellaneous perennial forbs-- Whortleleaf snowberry----- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 10 10 10 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
123: Preston-----	Sand 12-16 Putr2/achy (R028AY009ID)	1,400	900	700	Basin big sagebrush----- Needleandthread----- Antelope bitterbrush----- Lupine----- Muttongrass----- Miscellaneous shrubs----- Rabbitbrush----- Sand dropseed----- Western wheatgrass-----	10 10 5 5 5 5 5 5 5
124: Preston-----	Sand 12-16 Putr2/achy (R028AY009ID)	1,400	900	700	Basin big sagebrush----- Needleandthread----- Antelope bitterbrush----- Lupine----- Muttongrass----- Miscellaneous shrubs----- Rabbitbrush----- Sand dropseed----- Western wheatgrass-----	10 10 5 5 5 5 5 5 5
125: Preston-----	Sand 12-16 Putr2/achy (R028AY009ID)	1,400	900	700	Basin big sagebrush----- Needleandthread----- Antelope bitterbrush----- Lupine----- Muttongrass----- Miscellaneous shrubs----- Rabbitbrush----- Sand dropseed----- Western wheatgrass-----	10 10 5 5 5 5 5 5 5
126: Preston-----	Sand 12-16 Putr2/achy (R028AY009ID)	1,400	900	700	Basin big sagebrush----- Needleandthread----- Antelope bitterbrush----- Lupine----- Muttongrass----- Miscellaneous shrubs----- Rabbitbrush----- Sand dropseed----- Western wheatgrass-----	10 10 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
126: Xerorthents-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	700	500	250	Bluebunch wheatgrass----- Mountain big sagebrush----- Utah juniper----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Needleandthread----- Thickspike wheatgrass-----	20 10 5 5 5 5 5 5
128: Sanyon-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,000	600	300	Bluebunch wheatgrass----- Mountain big sagebrush----- Arrowleaf balsamroot----- Antelope bitterbrush----- Needleandthread-----	25 20 10 5 5
Staberg-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Whortleleaf snowberry-----	35 10 5 5 5 5 5 5 5
Kabear-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,200	1,800	1,400	Bluebunch wheatgrass----- Mountain big sagebrush----- Snowberry----- Longleaf hawksbeard----- Mountain brome----- Slender wheatgrass----- Sticky geranium----- Western wheatgrass-----	25 20 10 5 5 5 5 5
129: Smidale-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses	10 10 10 10 10 5 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
130: Smidale-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses	10 10 10 10 10 5 5 5
Staberg-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,200	1,800	1,200	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Slender wheatgrass----- Snowberry-----	35 10 5 5 5 5 5 5
131: Sprollow-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	550	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Sticky geranium----- Longleaf hawksbeard----- Slender wheatgrass----- Thickspike wheatgrass----- Western wheatgrass-----	20 20 5 5 5 3 2 2 2 2
Hondoho-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,400	900	600	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses	25 20 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
132: Sprollo-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 10 5 5 5 5 2
Hymas-----	Shallow Stony 12-16 Arar8/pssp6 (R013XY014ID)	1,000	600	300	Bluebunch wheatgrass----- Basin big sagebrush----- Low sagebrush----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Spiny phlox-----	35 15 10 5 5 5 5
133: Sterling-----	Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)	1,400	1,000	500	Bluebunch wheatgrass----- Nevada bluegrass----- Basin big sagebrush----- Antelope bitterbrush-----	50 15 10 5
134: Sterling-----	Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)	1,400	1,000	500	Bluebunch wheatgrass----- Nevada bluegrass----- Basin big sagebrush----- Antelope bitterbrush-----	50 15 10 5
135: Sterling-----	Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)	1,400	1,000	500	Bluebunch wheatgrass----- Nevada bluegrass----- Threetip sagebrush----- Antelope bitterbrush-----	50 15 10 5
136: Sterling-----	Gravelly Loam 12-16 Artrt/pssp6 (R028AY008ID)	1,400	1,000	500	Bluebunch wheatgrass----- Nevada bluegrass----- Basin big sagebrush----- Antelope bitterbrush-----	50 15 10 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
139: Toponce-----	Moist Mountain Loam 20+ Potr5 (R013XY016ID)	2,500	1,500	900	Pinegrass----- Mountain brome----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Elk sedge----- Quaking aspen----- Sticky geranium----- Common snowberry----- Mountain big sagebrush-----	40 10 10 10 4 3 3 2 2
Broadhead-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,400	2,000	1,400	Bluebunch wheatgrass----- Miscellaneous perennial grasses Columbia needlegrass----- Arrowleaf balsamroot----- Geranium----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Prairie junegrass----- Slender wheatgrass-----	40 15 10 5 5 5 5 5 5 5
143: Valmar-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial grasses Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Lupine----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	20 15 15 10 5 5 5 5 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
143: Camelback-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Kentucky bluegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Miscellaneous shrubs----- Slender wheatgrass----- Western snowberry-----	25 10 10 10 5 5 5 5 5 5 5 5
Hades-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	2,000	1,500	900	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs----- Slender wheatgrass-----	35 10 5 5 5 5 5 5 5
144: Vitale-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	2,000	1,500	850	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Longleaf hawksbeard----- Lupine----- Miscellaneous perennial forbs-- Miscellaneous perennial grasses Miscellaneous shrubs-----	25 15 5 5 5 5 5 5 5
Bergquist-----	Steep Slope 16-22 Artrv/pssp6 (R013XY003ID)	1,900	1,400	700	Bluebunch wheatgrass----- Miscellaneous perennial grasses Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Snowberry-----	25 20 15 10 10 5 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
145: Vitale-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 10 5 5 5 5 2
Yeates Hollow-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Cutleaf balsamroot----- Geranium----- Mountain big sagebrush----- Slender wheatgrass-----	40 5 5 5 5 5 5
Northwater-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Nevada bluegrass----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses Snowberry----- Western wheatgrass-----	10 10 10 10 5 5 5 5 5 5
151: Wheelon-----	Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Prairie junegrass----- Nevada bluegrass----- Antelope bitterbrush----- Western wheatgrass-----	35 15 10 5 5 5
Collinston-----	Steep Slope 12-16 Artrt/pssp6 (R028AY032ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Prairie junegrass----- Nevada bluegrass----- Antelope bitterbrush----- Western wheatgrass-----	35 15 10 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
152: Windernot-----	Loamy 11-13 Artrt/pssp6 (R028AY024ID)	1,600	900	700	Bluebunch wheatgrass----- Basin big sagebrush----- Arrowleaf balsamroot----- Miscellaneous perennial forbs--	40 15 5 5
Lewnot-----	Semiwet Meadow (R028AY029ID)	2,800	2,200	1,900	Slender wheatgrass----- Tufted hairgrass----- Kentucky bluegrass----- Cinquefoil----- Clover----- Shrubby cinquefoil----- Western wheatgrass----- Willow-----	20 10 5 5 5 5 5 5
Stinkcreek-----	Wet Meadow (R028AY028ID)	4,500	3,600	2,500	Tufted hairgrass----- Cinquefoil----- Clover-----	20 5 5
156: Wormcreek-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,300	800	400	Bluebunch wheatgrass----- Arrowleaf balsamroot----- Mountain big sagebrush----- Antelope bitterbrush----- Needleandthread-----	20 10 10 5 5
Copenhagen-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	850	650	350	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Longleaf hawksbeard-----	30 20 5 5 5 5 5
157: Wormcreek-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,300	800	400	Bluebunch wheatgrass----- Arrowleaf balsamroot----- Mountain big sagebrush----- Antelope bitterbrush----- Needleandthread-----	20 10 10 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		Lb/acre	Lb/acre	Lb/acre		Pct
157: Lonigan-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Western wheatgrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Longleaf hawksbeard-----	30 20 10 5 5 5 5 5
158: Wursten-----	Loamy 11-13 Artrt/pssp6 (R028AY024ID)	1,400	700	500	Bluebunch wheatgrass----- Basin big sagebrush----- Antelope bitterbrush----- Longleaf hawksbeard----- Prairie junegrass-----	40 20 5 5 5
Dirtyhead-----	Shallow Loamy 8-12 Arno4/pssp6 (R028AY013ID)	1,800	1,200	800	Bluebunch wheatgrass----- Basin big sagebrush----- Prairie junegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Western wheatgrass-----	35 15 10 5 5 5 5
159: Xerochrepts-----	Juniper Breaks 13-16 Juos/pssp6 (R028AY027ID)	700	500	250	Bluebunch wheatgrass----- Mountain big sagebrush----- Utah juniper----- Arrowleaf balsamroot----- Thickspike wheatgrass-----	25 20 15 5 5
Wormcreek-----	Ashy Loam 13-16 Artrv/pssp6 (R013XY009ID)	1,300	800	400	Bluebunch wheatgrass----- Arrowleaf balsamroot----- Mountain big sagebrush----- Antelope bitterbrush----- Needleandthread-----	20 10 10 5 5
Xerorthents-----	Juniper Breaks 13-16 Juos/pssp6 (R028AY027ID)	700	500	250	Bluebunch wheatgrass----- Mountain big sagebrush----- Utah juniper----- Antelope bitterbrush----- Arrowleaf balsamroot----- Green rabbitbrush----- Needleandthread----- Thickspike wheatgrass-----	20 10 5 5 5 5 5 5



Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
160: Xerorthents-----	Steep Slopes 12-16 Artrv/pssp6 (R013XY008ID)	1,500	1,100	550	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Longleaf hawksbeard----- Sticky geranium----- Thickspike wheatgrass-----	20 20 5 5 5 5
161: Yeates Hollow-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Cutleaf balsamroot----- Geranium----- Mountain big sagebrush----- Slender wheatgrass-----	40 5 5 5 5 5 5
162: Yeates Hollow-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Cutleaf balsamroot----- Geranium----- Mountain big sagebrush----- Slender wheatgrass-----	40 5 5 5 5 5 5
Manila-----	Loamy 16-22 Artrv/pssp6 16-22" (R013XY005ID)	2,600	2,000	1,200	Bluebunch wheatgrass----- Mountain big sagebrush----- Columbia needlegrass----- Nevada bluegrass----- Antelope bitterbrush----- Arrowleaf balsamroot----- Prairie junegrass----- Slender wheatgrass----- Sticky geranium-----	40 10 5 5 5 5 5 5 5
Softback-----	Mountain Loam 18-22 Acsag2/artrv/pssp6 (R047XY009ID)	2,100	1,800	1,600	Bigtooth maple----- Bluebunch wheatgrass----- Mountain big sagebrush----- Miscellaneous perennial forbs-- Miscellaneous shrubs----- Rocky Mountain juniper----- Common chokecherry----- Miscellaneous perennial grasses	10 10 10 10 10 5 5 5

Table 6.--Rangeland Productivity and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/acre</i>	<i>Lb/acre</i>	<i>Lb/acre</i>		<i>Pct</i>
163: Yeates Hollow-----	Stony Loam 16-22 Artrv/pssp6 (R013XY019ID)	1,800	1,100	600	Bluebunch wheatgrass----- Columbia needlegrass----- Antelope bitterbrush----- Cutleaf balsamroot----- Geranium----- Mountain big sagebrush----- Slender wheatgrass-----	40 5 5 5 5 5 5
Vitale-----	Gravelly Loam 16-22 Artrv/pssp6 (R013XY007ID)	1,100	800	500	Bluebunch wheatgrass----- Mountain big sagebrush----- Nevada bluegrass----- Arrowleaf balsamroot----- Cutleaf balsamroot----- Western wheatgrass----- Antelope bitterbrush-----	30 10 5 5 5 5 2

Table 7.--Windbreaks and Environmental Plantings

(Absence of an entry indicates that trees generally do not grow to the given height on the soil.)

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
2: Ant Flat-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	Idahybrid poplar
3: Ant Flat-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	Idahybrid poplar
4: Ant Flat-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	Idahybrid poplar
5: Ant Flat-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	Idahybrid poplar
Oxford.					
6: Ant Flat-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	Idahybrid poplar
Oxford.					
7: Arbone-----	---	Amur honeysuckle, skunkbush sumac	Black locust, eastern redcedar	Austrian pine, blue spruce, golden willow, green ash, Rocky Mountain juniper	Redosier dogwood, Siberian elm

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
10: Battle Creek-----	Common lilac, silver buffaloberry	---	Golden willow, green ash	Siberian elm	Redosier dogwood
11: Battle Creek-----	Common lilac, silver buffaloberry	---	Golden willow, green ash	Siberian elm	Redosier dogwood
12: Battle Creek-----	Common lilac, Nanking cherry	Rocky Mountain juniper	Scotch pine	Golden willow, honeylocust	---
13: Bear Lake.  Chesbrook.					
Picabo-----	Amur honeysuckle, common lilac, skunkbush sumac	Black locust, eastern redcedar, green ash, Rocky Mountain juniper	---	---	---
15: Bear Lake.  Downata.					
Thatcherflats-----	Common lilac, silver buffaloberry, skunkbush sumac	Siberian elm	---	---	Redosier dogwood
17: Bearhollow-----					
Brifox-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, Russian olive, skunkbush sumac	Black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---	---
Iphil.					
21: Bothwell-----	American plum, common lilac	Eastern redcedar, Siberian crabapple	Austrian pine, black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
22: Bothwell-----	American plum, common lilac	Eastern redcedar, Siberian crabapple	Austrian pine, black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---
23: Bothwell-----	American plum, common lilac	Eastern redcedar, Siberian crabapple	Austrian pine, black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Justesen-----	Common lilac, Nanking cherry, Tatarian honeysuckle	Rocky Mountain juniper	Blue spruce, Scotch pine	Golden willow, honeylocust, Russian olive	---
24: Bothwell-----	American plum, common lilac	Eastern redcedar, Siberian crabapple	Austrian pine, black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---
Thatcher-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	---
25: Brifox-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, Russian olive, skunkbush sumac	Black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---	---
Huffman-----	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
26: Brifox-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, Russian olive, skunkbush sumac	Black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---	---
Huffman-----	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---
27: Brifox-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, Russian olive, skunkbush sumac	Black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---	---
Niter-----	Amur honeysuckle, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, Scotch pine	Siberian elm	Lombardy poplar
28: Brifox-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, Russian olive, skunkbush sumac	Black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---	---
Niter-----	Amur honeysuckle, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, Scotch pine	Siberian elm	Lombardy poplar
30: Broadhead.					
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Yago.					

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
33: Camelback.					
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Valmar.					
34: Cedarhill-----	Common lilac, Rocky Mountain juniper, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine	Siberian elm	---	---
35: Cedarhill.					
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Ricrest.					
38: Cloudless-----	American plum, skunkbush sumac	Eastern redcedar, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	Siberian elm	---
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
39: Cloudless-----	American plum, skunkbush sumac	Eastern redcedar, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	Siberian elm	---
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---



Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
39: Howcan-----	Common lilac, silver buffaloberry, skunkbush sumac	---	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine, Rocky Mountain juniper	Siberian elm	---
41: Delish-----	Common lilac, skunkbush sumac	---	Austrian pine, golden willow, green ash	Plains cottonwood	Redosier dogwood
Cachecan-----	Amur honeysuckle, common lilac	Black locust, eastern redcedar, Rocky Mountain juniper, Russian olive, Siberian crabapple	Austrian pine, green ash, Scotch pine	---	---
Stinkcreek.					
46: Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Camelback.					
Hondoho.					
47: Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Lanoak.					
Camelback.					

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
49: Hendricks-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, blue spruce, eastern redcedar, green ash, ponderosa pine	Golden willow, Siberian elm
50: Holmes-----	---	---	Cottonwood	---	---
51: Hondee-----	Common lilac	Austrian pine, black locust, ponderosa pine	Green ash	Honeylocust	---
52: Hondee-----	Common lilac	Austrian pine, black locust, ponderosa pine	Green ash	Honeylocust	---
53: Hondoho-----	Common lilac, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine, Rocky Mountain juniper, Siberian elm	---	---	---
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
54: Hondoho-----	Common lilac, Rocky Mountain juniper, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine	Siberian elm	---	---
Ricrest-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
55: Hondoho.  Sprollo.					
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
57: Huffman-----	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---
58: Huffman-----	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---
59: Huffman-----	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---
Dirtyhead.					
60: Huffman-----	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---
Harroun.					
Lanoak-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Scotch pine	Golden willow, Lombardy poplar

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
61: Huffman-----  Wursten.	American plum, skunkbush sumac, Tatarian honeysuckle	Eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, black locust, green ash, Scotch pine	Siberian elm	---
62: Iphil-----  Lonigan-----	---	Amur honeysuckle, common lilac, silver buffaloberry	Black locust, eastern redcedar, Rocky Mountain juniper	Austrian pine, blue spruce, golden willow, green ash	Idahybrid poplar
64: Kabear-----  Staberg-----  Copenhagen.	---	Amur honeysuckle, common lilac, skunkbush sumac	---	Black locust, eastern redcedar, green ash, Rocky Mountain juniper	Siberian elm  ---
65: Kabear-----  Staberg. Copenhagen.	---	American plum, common lilac, skunkbush sumac	Eastern redcedar	Austrian pine, black locust, blue spruce, green ash, ponderosa pine	Golden willow, Lombardy poplar
66: Kearns-----	---	American plum, common lilac, skunkbush sumac	Eastern redcedar	Austrian pine, black locust, blue spruce, green ash, ponderosa pine	Golden willow, Lombardy poplar

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
67: Kearnsar-----	Common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, ponderosa pine	Blue spruce, golden willow, green ash	Idahybrid poplar
Battle Creek-----	Common lilac, silver buffaloberry	---	Golden willow, green ash	Siberian elm	Redosier dogwood
68: Kidman-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, Lombardy poplar, ponderosa pine	Golden willow, Siberian elm
69: Kidman-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, Lombardy poplar, ponderosa pine	Golden willow, Siberian elm
71: Kidman, wet-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, Lombardy poplar, ponderosa pine	Golden willow, Siberian elm
72: Kidman-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, Lombardy poplar, ponderosa pine	Golden willow, Siberian elm
Sterling-----	Common lilac, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine, Scotch pine	Siberian elm	---	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
73: Lando-----	Common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, ponderosa pine	Blue spruce, golden willow, green ash	Idahybrid poplar
74: Lanoak-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Scotch pine	Golden willow, Lombardy poplar
75: Lanoak-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Scotch pine	Golden willow, Lombardy poplar
76: Lanoak-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Scotch pine	Golden willow, Lombardy poplar
Broadhead.					
77: Lanoak.					
Broadhead.					
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
78: Lanoak-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Scotch pine	Golden willow, Lombardy poplar

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
78: Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
79: Lanoak-----	---	American plum, common lilac, skunkbush sumac	---	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Scotch pine	Golden willow, Lombardy poplar
Thatcher.					
87: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
88: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
89: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
90: Manila.					
Bancroft-----	European privet, Nanking cherry	Rocky Mountain juniper	Blue spruce, Norway spruce, Scotch pine	Golden willow, idahybrid poplar, Russian olive	---



Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
91: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
Broadhead.					
92: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
Broadhead.					
94: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
Yeates Hollow-----	Amur honeysuckle, Austrian pine, common lilac, Nanking cherry, skunkbush sumac	Black locust, green ash, ponderosa pine, Rocky Mountain juniper, Scotch pine	Siberian elm	---	---
95: Maplecreek-----	Common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, Rocky Mountain juniper	Blue spruce, golden willow, green ash	Idahybrid poplar, redosier dogwood
96: Maplecreek-----	Common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, Rocky Mountain juniper	Blue spruce, golden willow, green ash	Idahybrid poplar, redosier dogwood
Layton.					

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
97: Merkley-----  Lago.  Bear Lake.	---	Silver buffaloberry, skunkbush sumac	Eastern redcedar, Rocky Mountain juniper	Austrian pine, blue spruce, green ash	Golden willow, Lombardy poplar, redosier dogwood, Siberian elm
99: Niter-----	Amur honeysuckle, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, Scotch pine	Siberian elm	Lombardy poplar
Brifox-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, Russian olive, skunkbush sumac	Black locust, blue spruce, green ash, ponderosa pine	Siberian elm	---	---
109: Parleys-----	American plum, common lilac, skunkbush sumac	Eastern redcedar, Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash	Chinese elm, Siberian elm	---
110: Parleys-----	American plum, common lilac, skunkbush sumac	Eastern redcedar, Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash	Chinese elm, Siberian elm	---
111: Parleys, wet-----	Amur honeysuckle, common lilac, skunkbush sumac	Black locust, eastern redcedar, Rocky Mountain juniper	Austrian pine, Chinese elm, green ash, Siberian elm	---	---
113: Picabo-----	Amur honeysuckle, common lilac, skunkbush sumac	Black locust, eastern redcedar, green ash, Rocky Mountain juniper	---	---	---
Thatcherflats-----	Common lilac, silver buffaloberry, skunkbush sumac	Siberian elm	---	---	Redosier dogwood

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
115: Pollynot-----	American plum, common lilac, skunkbush sumac	Black locust, Rocky Mountain juniper	Austrian pine, blue spruce, Chinese elm, green ash, Scotch pine, Siberian elm	---	---
116: Pollynot-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, Scotch pine	Chinese elm, Siberian elm	---
117: Pollynot-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, Scotch pine	Chinese elm, Siberian elm	---
118: Pollynot-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, Scotch pine	Chinese elm, Siberian elm	---
121: Povey.					
Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
Hondoho.					
127: Ricrest-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
133: Sterling-----	Common lilac, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine, Scotch pine	Siberian elm	---	---
134: Sterling-----	Common lilac, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine, Scotch pine	Siberian elm	---	---
137: Sterling-----	Common lilac, silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, honeylocust, ponderosa pine, Scotch pine	Siberian elm	---	---
Parleys-----	American plum, common lilac, skunkbush sumac	Eastern redcedar, Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash	Chinese elm, Siberian elm	---
138: Thatcher-----	American plum, common lilac, skunkbush sumac	Rocky Mountain juniper	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Scotch pine	Siberian elm	---
Bearhollow.					
140: Trenton-----	Common lilac, silver buffaloberry, skunkbush sumac	---	Siberian elm	---	Redosier dogwood
Battle Creek-----	Common lilac, silver buffaloberry	---	Golden willow, green ash	Siberian elm	Redosier dogwood

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
141: Trenton, cool-----	Common lilac, silver buffaloberry, skunkbush sumac	---	Siberian elm	---	Redosier dogwood
Battle Creek, cool-----	Common lilac, silver buffaloberry	---	Golden willow, green ash	Siberian elm	Redosier dogwood
142: Trenton-----	Common lilac, silver buffaloberry, skunkbush sumac	---	Siberian elm	---	Redosier dogwood
Parleys-----	Amur honeysuckle, common lilac, skunkbush sumac	Black locust, eastern redcedar, Rocky Mountain juniper	Austrian pine, Chinese elm, green ash, Siberian elm	---	---
143: Valmar.  Camelback.  Hades-----	American plum, skunkbush sumac	Eastern redcedar, Russian olive, Siberian crabapple	Austrian pine, black locust, green ash, ponderosa pine, Scotch pine	---	---
146: Welby-----	Silver buffaloberry, skunkbush sumac	Black locust, eastern redcedar, Rocky Mountain juniper	Austrian pine, blue spruce, green ash, Siberian elm	---	---
147: Welby-----	Silver buffaloberry, skunkbush sumac	Black locust, eastern redcedar, Rocky Mountain juniper	Austrian pine, blue spruce, green ash, Siberian elm	---	---
148: Welby, wet-----	Silver buffaloberry, skunkbush sumac	Black locust, eastern redcedar, Rocky Mountain juniper	Austrian pine, blue spruce, green ash, Siberian elm	---	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
149: Collinston-----	Amur honeysuckle	Black locust, eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, blue spruce, green ash, Siberian elm	---	---
Wheelon-----	Silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Rocky Mountain juniper	Siberian elm	---	---
150: Wheelon-----	Silver buffaloberry, skunkbush sumac	Austrian pine, black locust, blue spruce, eastern redcedar, green ash, Rocky Mountain juniper	Siberian elm	---	---
Collinston-----	Amur honeysuckle	Black locust, eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, blue spruce, green ash, Siberian elm	---	---
151: Wheelon.					
Collinston-----	Amur honeysuckle	Black locust, eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, blue spruce, green ash, Siberian elm	---	---
152: Windernot-----	Amur honeysuckle, common lilac, eastern redcedar, Rocky Mountain juniper, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash	Siberian elm	---	---

Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
152: Lewnot-----  Stinkcreek.	Amur honeysuckle, common lilac	---	Austrian pine, black locust, eastern redcedar, Rocky Mountain juniper	Blue spruce, golden willow, green ash	Idahybrid poplar, redosier dogwood
153: Winn-----	Amur honeysuckle, common lilac, skunkbush sumac	Austrian pine, black locust, blue spruce, green ash, ponderosa pine, Rocky Mountain juniper, Scotch pine, Siberian crabapple	---	---	---
154: Winwell-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, skunkbush sumac	Black locust, ponderosa pine, Scotch pine	Siberian elm	---	---
155: Winwell-----	Amur honeysuckle, Austrian pine, common lilac, Rocky Mountain juniper, skunkbush sumac	Black locust, ponderosa pine, Scotch pine	Siberian elm	---	---
Collinston-----	Amur honeysuckle	Black locust, eastern redcedar, Rocky Mountain juniper, Russian olive	Austrian pine, blue spruce, green ash, Siberian elm	---	---
162: Yeates Hollow-----	Amur honeysuckle, Austrian pine, common lilac, Nanking cherry, skunkbush sumac	Black locust, green ash, ponderosa pine, Rocky Mountain juniper, Scotch pine	Siberian elm	---	---



Table 7.--Windbreaks and Environmental Plantings--Continued

Map symbol and soil name	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
162: Manila-----	Amur honeysuckle, common lilac, skunkbush sumac	---	Austrian pine, black locust, eastern redcedar, green ash, Rocky Mountain juniper, Scotch pine	Siberian elm	Lombardy poplar
Softback.					

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Sodium content Flooding Salinity Slow water movement	1.00 1.00 1.00 0.41	Very limited Sodium content Salinity Slow water movement	1.00 1.00 0.41	Very limited Sodium content Salinity Slow water movement	1.00 1.00 0.41
2: Ant Flat-----	85	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41
3: Ant Flat-----	85	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement Slope	0.41 0.12
4: Ant Flat-----	90	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.41 0.01	Very limited Slope Slow water movement	1.00 0.41
5: Ant Flat-----	65	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Very limited Slope Slow water movement	1.00 0.41
Oxford-----	25	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45 0.04	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45 0.04	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
6: Ant Flat-----	50	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
Oxford-----	35	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
7: Arbone-----	80	Not limited		Not limited		Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8: Banida-----	85	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45
9: Banida-----	80	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement Slope	0.45 0.12
10: Battle Creek-----	85	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45
11: Battle Creek-----	85	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement Slope	0.45 0.12
12: Battle Creek-----	95	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Very limited Slope Slow water movement	1.00 0.45
13: Bear Lake-----	40	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00 1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Flooding Slow water movement	1.00 1.00 0.60 0.21
Chesbrook-----	30	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Slow water movement	0.99 0.21	Very limited Depth to saturated zone Slow water movement	1.00 0.21
Picabo-----	15	Very limited Sodium content Flooding	1.00 1.00	Very limited Sodium content	1.00	Very limited Sodium content	1.00
14: Bear Lake-----	50	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00 0.40 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14: Downata-----	35	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00  1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Flooding Slow water movement	1.00  1.00 0.40 0.21	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00  1.00 1.00 0.21
15: Bear Lake-----	50	Very limited Depth to saturated zone Flooding Slow water movement	1.00  1.00 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00  0.40 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00  1.00 0.21
Downata-----	25	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00  1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Flooding Slow water movement	1.00  1.00 0.40 0.21	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00  1.00 1.00 0.21
Thatcherflats-----	20	Very limited Sodium content Flooding Slow water movement	1.00 1.00 0.45	Very limited Sodium content Slow water movement	1.00 0.45	Very limited Sodium content Slow water movement	1.00 0.45
16: Bear Lake-----	65	Very limited Depth to saturated zone Flooding Slow water movement	1.00  1.00 0.21	Very limited Depth to saturated zone Slow water movement	1.00  0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00  0.60 0.21
Lago-----	30	Very limited Flooding Depth to saturated zone	1.00  0.07	Somewhat limited Depth to saturated zone	0.03	Somewhat limited Depth to saturated zone	0.07
17: Bearhollow-----	30	Very limited Slope Gravel content Dusty	1.00 0.97 0.50	Very limited Slope Gravel content Dusty	1.00 0.97 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50
Brifox-----	25	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Iphil-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
18: Bergquist-----	60	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Rubble land-----	15	Not rated		Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Softback-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
20: Bergquist-----	55	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Vitale-----	25	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones Gravel content Depth to bedrock	1.00 0.82 0.66 0.65
21: Bothwell-----	80	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
22: Bothwell-----	80	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
23: Bothwell-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Justesen-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
24: Bothwell-----	40	Not limited		Not limited		Very limited Slope	1.00
Thatcher-----	35	Not limited		Not limited		Very limited Slope Gravel content	1.00 0.44

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
25: Brifox-----	40	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45  0.01	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45  0.01	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Huffman-----	35	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
26: Brifox-----	40	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Huffman-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
27: Brifox-----	55	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45  0.01	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45  0.01	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Niter-----	25	Somewhat limited Slow water movement Slope	0.45  0.01	Somewhat limited Slow water movement Slope	0.45  0.01	Very limited Slope Slow water movement	1.00 0.45
28: Brifox-----	65	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Niter-----	20	Very limited Slope Slow water movement	1.00 0.45	Very limited Slope Slow water movement	1.00 0.45	Very limited Slope Slow water movement	1.00 0.45
29: Brifox-----	55	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Niter-----	25	Very limited Slope Slow water movement	1.00 0.45	Very limited Slope Slow water movement	1.00 0.45	Very limited Slope Slow water movement	1.00 0.45

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
30: Broadhead-----	30	Somewhat limited Slope Slow water movement	0.63 0.41	Somewhat limited Slope Slow water movement	0.63 0.41	Very limited Slope Slow water movement	1.00 0.41
Hades-----	25	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope Gravel content	1.00 0.08
Yago-----	25	Somewhat limited Content of large stones Slope Slow water movement	0.86 0.63 0.41	Somewhat limited Content of large stones Slope Slow water movement	0.86 0.63 0.41	Very limited Slope Content of large stones Slow water movement Gravel content	1.00 0.86 0.41 0.08
31: Broadhead-----	40	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
Yago-----	35	Very limited Slope Content of large stones Slow water movement	1.00 0.86 0.41	Very limited Slope Content of large stones Slow water movement	1.00 0.86 0.41	Very limited Slope Content of large stones Slow water movement Gravel content	1.00 0.86 0.41 0.08
32: Camelback-----	55	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Lonigan-----	25	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.90
33: Camelback-----	40	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Valmar-----	20	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Gravel content Depth to bedrock Content of large stones	1.00 0.93 0.90 0.08



# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34: Cedarhill-----	90	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
35: Cedarhill-----	40	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Hades-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Ricrest-----	20	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 1.00
36: Cedarhill-----	35	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Hondoho-----	30	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 1.00
Ridgecrest-----	20	Very limited Slope Gravel content Content of large stones	1.00 0.37 0.29	Very limited Slope Gravel content Content of large stones	1.00 0.37 0.29	Very limited Slope Gravel content Depth to bedrock Content of large stones	1.00 1.00 0.71 0.29
37: Chesbrook-----	60	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Slow water movement	0.99 0.21	Very limited Depth to saturated zone Slow water movement	1.00 0.21
Bear Lake-----	20	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Slow water movement	1.00 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00 0.60 0.21
38: Cloudless-----	50	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
Hades-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope Gravel content	1.00 0.08

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
39: Cloudless-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Howcan-----	20	Very limited Slope Gravel content	1.00 0.91	Very limited Slope Gravel content	1.00 0.91	Very limited Gravel content Slope	1.00 1.00
40: Copenhagen-----	35	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.98	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.98	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 1.00
Lonigan-----	30	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.20
Manila-----	20	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
41: Delish-----	40	Very limited Flooding Depth to saturated zone Salinity	1.00 0.39 0.13	Somewhat limited Depth to saturated zone Salinity	0.19 0.13	Somewhat limited Depth to saturated zone Salinity	0.39 0.13
Cachecan-----	25	Very limited Flooding Dusty	1.00 0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
Stinkcreek-----	15	Very limited Depth to saturated zone Sodium content Flooding Slow water movement	1.00 1.00 1.00 0.21	Very limited Depth to saturated zone Sodium content Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Sodium content Slow water movement	1.00 1.00 0.21
42: Downata-----	80	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00 1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Flooding Slow water movement	1.00 1.00 0.40 0.21	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00 1.00 1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
43: Dranburn-----	45	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21
Robin-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
44: Enochville-----	75	Very limited Flooding Depth to saturated zone Slow water movement	1.00 0.98 0.21	Somewhat limited Depth to saturated zone Flooding Slow water movement	0.75 0.40 0.21	Very limited Flooding Depth to saturated zone Slow water movement	1.00 0.98 0.21
45: Foxol-----	45	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.46	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.46	Very limited Slope Depth to bedrock Gravel content Content of large stones	1.00 1.00 0.55 0.46
Vitale-----	30	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones Gravel content Depth to bedrock	1.00 0.82 0.66 0.65
46: Hades-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Camelback-----	20	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Hondoho-----	20	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 1.00
47: Hades-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Lanoak-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	25	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48: Haploxerolls-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.44
Xerorthents-----	30	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50
49: Hendricks-----	90	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
50: Holmes-----	90	Very limited Flooding Gravel content	1.00 0.01	Somewhat limited Gravel content	0.01	Very limited Gravel content	1.00
51: Hondee-----	85	Somewhat limited Gravel content	0.97	Somewhat limited Gravel content	0.97	Very limited Gravel content Slope	1.00 0.12
52: Hondee-----	75	Somewhat limited Gravel content Slope	0.97 0.01	Somewhat limited Gravel content Slope	0.97 0.01	Very limited Gravel content Slope	1.00 1.00
53: Hondoho-----	50	Somewhat limited Gravel content Slope	0.12 0.01	Somewhat limited Gravel content Slope	0.12 0.01	Very limited Slope Gravel content	1.00 1.00
Hades-----	30	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope Gravel content	1.00 0.08
54: Hondoho-----	50	Somewhat limited Slope Gravel content	0.63 0.12	Somewhat limited Slope Gravel content	0.63 0.12	Very limited Slope Gravel content	1.00 1.00
Ricrest-----	40	Somewhat limited Gravel content Slope	0.61 0.01	Somewhat limited Gravel content Slope	0.61 0.01	Very limited Gravel content Slope	1.00 1.00
55: Hondoho-----	35	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 1.00
Sprollo-----	30	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty Depth to bedrock	1.00 1.00 0.50 0.01

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
55: Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
56: Hondoho-----	45	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 1.00
Vitale-----	30	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones Gravel content Depth to bedrock	1.00 0.82 0.66 0.65
57: Huffman-----	80	Not limited		Not limited		Not limited	
58: Huffman-----	80	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
59: Huffman-----	45	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
Dirtyhead-----	30	Very limited Gravel content Dusty Slope	1.00 0.50 0.01	Very limited Gravel content Dusty Slope	1.00 0.50 0.01	Very limited Gravel content Slope Dusty Depth to bedrock	1.00 1.00 0.50 0.01
60: Huffman-----	35	Not limited		Not limited		Very limited Slope	1.00
Harroun-----	30	Very limited Depth to cemented pan Gravel content Slope	1.00 0.42 0.01	Very limited Depth to cemented pan Gravel content Slope	1.00 0.42 0.01	Very limited Depth to cemented pan Slope Gravel content	1.00 1.00 1.00 1.00
Lanoak-----	25	Not limited		Not limited		Somewhat limited Slope	0.50
61: Huffman-----	45	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
Wursten-----	35	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
62: Iphil-----	60	Somewhat limited Slope	0.96	Somewhat limited Slope	0.96	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62: Lonigan-----	20	Somewhat limited Gravel content Slope	0.97 0.96	Somewhat limited Gravel content Slope	0.97 0.96	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.90
63: Ireland-----	50	Very limited Slope Gravel content Content of large stones	1.00 0.72 0.01	Very limited Slope Gravel content Content of large stones	1.00 0.72 0.01	Very limited Slope Gravel content Depth to bedrock Content of large stones	1.00 1.00 0.95 0.01
Polumar-----	25	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 1.00
64: Kabear-----	50	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
Staberg-----	25	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope Gravel content Depth to bedrock	1.00 0.44 0.01
Copenhagen-----	15	Very limited Depth to bedrock Gravel content Slope	1.00 0.98 0.01	Very limited Depth to bedrock Gravel content Slope	1.00 0.98 0.01	Very limited Gravel content Depth to bedrock Slope	1.00 1.00 1.00
65: Kabear-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Staberg-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Depth to bedrock	1.00 0.44 0.01
Copenhagen-----	15	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.98	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.98	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 1.00
66: Kearns-----	80	Not limited		Not limited		Not limited	
67: Kearnsar-----	60	Not limited		Not limited		Not limited	
Battle Creek-----	25	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45
68: Kidman-----	90	Not limited		Not limited		Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
69: Kidman-----	85	Not limited		Not limited		Somewhat limited Slope	0.12
70: Kidman-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
71: Kidman, wet-----	85	Not limited		Not limited		Not limited	
72: Kidman-----	45	Not limited		Not limited		Not limited	
Sterling-----	30	Somewhat limited Gravel content	0.68	Somewhat limited Gravel content	0.68	Very limited Gravel content	1.00
73: Lando-----	75	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41
74: Lanoak-----	75	Not limited		Not limited		Not limited	
75: Lanoak-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
76: Lanoak-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Broadhead-----	40	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
77: Lanoak-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Broadhead-----	30	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
Hades-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
78: Lanoak-----	40	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
Hades-----	35	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope Gravel content	1.00 0.08



# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
79: Lanoak-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Thatcher-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.44
80: Layton-----	85	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87
81: Layton-----	80	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87
82: Lizdale-----	80	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Gravel content Content of large stones	1.00 0.93 0.08
83: Lizdale-----	55	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Gravel content Content of large stones	1.00 0.93 0.08
Searla-----	35	Very limited Slope Gravel content	1.00 0.54	Very limited Slope Gravel content	1.00 0.54	Very limited Slope Gravel content	1.00 1.00
84: Logan-----	90	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.96	Very limited Depth to saturated zone Slow water movement	1.00 0.96	Very limited Depth to saturated zone Slow water movement	1.00 0.96
85: Lonigan-----	40	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.20
Lizdale-----	40	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Gravel content Content of large stones	1.00 0.93 0.08
86: Lonigan-----	45	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.90

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
86: Ricrest-----	30	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 1.00
87: Manila-----	85	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41
88: Manila-----	80	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.41 0.01	Very limited Slope Slow water movement	1.00 0.41
89: Manila-----	85	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
90: Manila-----	50	Somewhat limited Slow water movement Slope	0.41 0.37	Somewhat limited Slow water movement Slope	0.41 0.37	Very limited Slope Slow water movement	1.00 0.41
Bancroft-----	30	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
91: Manila-----	50	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.41 0.01	Very limited Slope Slow water movement	1.00 0.41
Broadhead-----	25	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.41 0.01	Very limited Slope Slow water movement	1.00 0.41
92: Manila-----	40	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
Broadhead-----	35	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Manila-----	50	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
Lonigan-----	30	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.20
94: Manila-----	55	Somewhat limited Slope Slow water movement	0.84 0.41	Somewhat limited Slope Slow water movement	0.84 0.41	Very limited Slope Slow water movement	1.00 0.41
Yeates Hollow-----	30	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope Gravel content	1.00 0.41
95: Maplecreek-----	95	Very limited Flooding	1.00	Not limited		Not limited	
96: Maplecreek-----	45	Very limited Flooding	1.00	Not limited		Not limited	
Layton-----	35	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87
97: Merkley-----	45	Not limited		Not limited		Not limited	
Lago-----	20	Very limited Flooding Depth to saturated zone	1.00 0.07	Somewhat limited Depth to saturated zone	0.03	Somewhat limited Depth to saturated zone	0.07
Bear Lake-----	15	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Slow water movement	1.00 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00 0.60 0.21
98: Moonlight-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	35	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
99: Niter-----	60	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement Slope	0.45 0.12
Brifox-----	20	Somewhat limited Too clayey Slow water movement	0.50 0.45	Somewhat limited Too clayey Slow water movement	0.50 0.45	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45 0.12
100: Northwater-----	35	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 1.00
Foxol-----	25	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.46	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.46	Very limited Slope Depth to bedrock Gravel content Content of large stones	1.00 1.00 0.55 0.46
Vitale-----	20	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones Gravel content Depth to bedrock	1.00 0.82 0.66 0.65
101: Northwater-----	65	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 1.00
Povey-----	25	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 1.00
102: Northwater-----	65	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 1.00
Povey-----	15	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 1.00
103: Nyman-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Depth to bedrock	1.00 0.05
Lonigan-----	20	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.90

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
103: Copenhagen-----	15	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.98	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.98	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 1.00
104: Oxford-----	45	Somewhat limited Too clayey Slow water movement	0.50 0.45	Somewhat limited Too clayey Slow water movement	0.50 0.45	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45 0.12
Banida-----	35	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement Slope	0.45 0.12
105: Oxford-----	45	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45 0.01	Somewhat limited Too clayey Slow water movement Slope	0.50 0.45 0.01	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Banida-----	35	Somewhat limited Slow water movement Slope	0.45 0.01	Somewhat limited Slow water movement Slope	0.45 0.01	Very limited Slope Slow water movement	1.00 0.45
106: Oxford-----	50	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Banida-----	35	Very limited Slope Slow water movement	1.00 0.45	Very limited Slope Slow water movement	1.00 0.45	Very limited Slope Slow water movement	1.00 0.45
107: Oxford-----	65	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45	Very limited Slope Too clayey Slow water movement	1.00 0.50 0.45
Gullied land-----	15	Not rated		Not rated		Not rated	
108: Parkay-----	45	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
108: Povey-----	30	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 1.00
109: Parleys-----	85	Not limited		Not limited		Not limited	
110: Parleys-----	85	Not limited		Not limited		Very limited Slope	1.00
111: Parleys, wet-----	90	Very limited Flooding	1.00	Not limited		Not limited	
112: Pavohroo-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Sedgway-----	30	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21
Toponce-----	20	Very limited Slope Slow water movement	1.00 0.96	Very limited Slope Slow water movement	1.00 0.96	Very limited Slope Slow water movement Gravel content	1.00 0.96 0.56
113: Picabo-----	45	Very limited Sodium content Flooding	1.00 1.00	Very limited Sodium content	1.00	Very limited Sodium content	1.00
Thatcherflats-----	30	Very limited Sodium content Flooding Slow water movement	1.00 1.00 0.45	Very limited Sodium content Slow water movement	1.00 0.45	Very limited Sodium content Slow water movement	1.00 0.45
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
116: Pollynot-----	75	Not limited		Not limited		Not limited	
117: Pollynot-----	75	Not limited		Not limited		Somewhat limited Slope	0.12
118: Pollynot-----	75	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
119: Polumar-----	45	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 1.00
Ireland-----	30	Very limited Slope Gravel content Content of large stones	1.00 0.72 0.01	Very limited Slope Gravel content Content of large stones	1.00 0.72 0.01	Very limited Slope Gravel content Depth to bedrock Content of large stones	1.00 1.00 0.95 0.01
120: Polumar-----	30	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 0.61	Very limited Slope Gravel content	1.00 1.00
Sprollo-----	30	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty Depth to bedrock	1.00 1.00 0.50 0.01
Ireland-----	20	Very limited Slope Gravel content Content of large stones	1.00 0.72 0.01	Very limited Slope Gravel content Content of large stones	1.00 0.72 0.01	Very limited Slope Gravel content Depth to bedrock Content of large stones	1.00 1.00 0.95 0.01
121: Povey-----	35	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 1.00
Hades-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08
Hondoho-----	15	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 1.00
122: Povey-----	45	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 0.01	Very limited Slope Gravel content	1.00 1.00
Parkay-----	30	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21	Very limited Slope Slow water movement	1.00 0.21
123: Preston-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy	1.00



# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
124: Preston-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy Slope	1.00 0.50
125: Preston-----	85	Very limited Too sandy Slope	1.00 1.00	Very limited Too sandy Slope	1.00 1.00	Very limited Slope Too sandy	1.00 1.00
126: Preston-----	55	Very limited Slope Too sandy	1.00 1.00	Very limited Too sandy Slope	1.00 1.00	Very limited Slope Too sandy	1.00 1.00
Xerorthents-----	20	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50
127: Ricrest-----	90	Somewhat limited Gravel content Slope	0.61 0.01	Somewhat limited Gravel content Slope	0.61 0.01	Very limited Gravel content Slope	1.00 1.00
128: Sanyon-----	30	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 1.00
Staberg-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Depth to bedrock	1.00 0.44 0.01
Kabear-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
129: Smidale-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
130: Smidale-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Staberg-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Depth to bedrock	1.00 0.44 0.01
131: Sprollow-----	45	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty Depth to bedrock	1.00 1.00 0.50 0.01

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
131: Hondoho-----	35	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 0.12	Very limited Slope Gravel content	1.00 1.00
132: Sprollo-----	40	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty	1.00 0.59 0.50	Very limited Slope Gravel content Dusty Depth to bedrock	1.00 1.00 0.50 0.01
Hymas-----	35	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00
133: Sterling-----	85	Somewhat limited Gravel content	0.68	Somewhat limited Gravel content	0.68	Very limited Gravel content	1.00
134: Sterling-----	85	Somewhat limited Gravel content	0.68	Somewhat limited Gravel content	0.68	Very limited Slope Gravel content	1.00 1.00
135: Sterling-----	90	Very limited Slope Gravel content	1.00 0.68	Very limited Slope Gravel content	1.00 0.68	Very limited Slope Gravel content	1.00 1.00
136: Sterling-----	85	Very limited Slope Gravel content	1.00 0.68	Very limited Slope Gravel content	1.00 0.68	Very limited Slope Gravel content	1.00 1.00
137: Sterling-----	50	Somewhat limited Gravel content	0.68	Somewhat limited Gravel content	0.68	Very limited Gravel content Slope	1.00 0.12
Parleys-----	30	Not limited		Not limited		Somewhat limited Slope	0.12
138: Thatcher-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope Gravel content	1.00 0.44
Bearhollow-----	35	Somewhat limited Gravel content Slope Dusty	0.97 0.84 0.50	Somewhat limited Gravel content Slope Dusty	0.97 0.84 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
139: Toponce-----	50	Very limited Slope Slow water movement	1.00 0.96	Very limited Slope Slow water movement	1.00 0.96	Very limited Slope Slow water movement Gravel content	1.00 0.96 0.56
Broadhead-----	30	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
140: Trenton-----	50	Very limited Sodium content Slow water movement	1.00 0.41	Very limited Sodium content Slow water movement	1.00 0.41	Very limited Sodium content Slow water movement	1.00 0.41
Battle Creek-----	40	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45
141: Trenton, cool-----	50	Very limited Sodium content Slow water movement	1.00 0.41	Very limited Sodium content Slow water movement	1.00 0.41	Very limited Sodium content Slow water movement	1.00 0.41
Battle Creek, cool--	40	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45	Somewhat limited Slow water movement	0.45
142: Trenton-----	45	Very limited Sodium content Slow water movement	1.00 0.41	Very limited Sodium content Slow water movement	1.00 0.41	Very limited Sodium content Slow water movement	1.00 0.41
Parleys-----	35	Very limited Flooding	1.00	Not limited		Not limited	
143: Valmar-----	40	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Gravel content Depth to bedrock Content of large stones	1.00 0.93 0.90 0.08
Camelback-----	25	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.08

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
144: Vitale-----	40	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones Gravel content Depth to bedrock	1.00 0.82 0.66 0.65
Bergquist-----	25	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Gravel content Slope	1.00 1.00
Rock outcrop-----	15	Not rated		Not rated		Not rated	
145: Vitale-----	35	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Depth to bedrock Content of large stones Gravel content	1.00 0.99 0.82 0.66
Yeates Hollow-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.41
Northwater-----	15	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 0.26	Very limited Slope Gravel content	1.00 1.00
146: Welby-----	90	Very limited Sodium content	1.00	Very limited Sodium content	1.00	Very limited Sodium content	1.00
147: Welby-----	90	Very limited Sodium content	1.00	Very limited Sodium content	1.00	Very limited Sodium content Slope	1.00 0.12
148: Welby, wet-----	85	Not limited		Not limited		Not limited	
149: Collinston-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
Wheelon-----	40	Somewhat limited Dusty Slope	0.50 0.01	Somewhat limited Dusty Slope	0.50 0.01	Very limited Slope Dusty	1.00 0.50
150: Wheelon-----	40	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50
Collinston-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
151: Wheelon-----	45	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50
Collinston-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
152: Windernot-----	40	Very limited Flooding Gravel content	1.00 0.68	Somewhat limited Gravel content	0.68	Very limited Gravel content	1.00
Lewnot-----	20	Very limited Flooding	1.00	Not limited		Not limited	
Stinkcreek-----	15	Very limited Depth to saturated zone Sodium content Flooding Slow water movement	1.00 1.00 1.00 0.21	Very limited Depth to saturated zone Sodium content Slow water movement	1.00 1.00 0.21	Very limited Depth to saturated zone Sodium content Slow water movement	1.00 1.00 0.21
153: Winn-----	90	Very limited Flooding	1.00	Not limited		Not limited	
154: Winwell-----	80	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41
155: Winwell-----	45	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.41	Somewhat limited Slope Slow water movement	0.88 0.41
Collinston-----	35	Not limited		Not limited		Somewhat limited Slope	0.88
156: Wormcreek-----	50	Very limited Slope Gravel content	1.00 0.71	Very limited Slope Gravel content	1.00 0.71	Very limited Slope Gravel content	1.00 1.00
Copenhagen-----	30	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.98	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.98	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 1.00
157: Wormcreek-----	45	Very limited Slope Gravel content	1.00 0.71	Very limited Slope Gravel content	1.00 0.71	Very limited Slope Gravel content	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
157: Lonigan-----	35	Very limited Slope Gravel content	1.00 0.97	Very limited Slope Gravel content	1.00 0.97	Very limited Gravel content Slope Depth to bedrock	1.00 1.00 0.90
158: Wursten-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Dirtyhead-----	35	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Gravel content Slope Dusty Depth to bedrock	1.00 1.00 0.50 0.01
159: Xerochrepts-----	30	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50
Wormcreek-----	25	Very limited Slope Gravel content	1.00 0.71	Very limited Slope Gravel content	1.00 0.71	Very limited Slope Gravel content	1.00 1.00
Xerorthents-----	20	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50
160: Xerorthents-----	75	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.21	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50
161: Yeates Hollow-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.41
162: Yeates Hollow-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.41
Manila-----	25	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.41
Softback-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 8.--Recreational Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
163: Yeates Hollow-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.41
Vitale-----	35	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones Depth to bedrock Gravel content	1.00 0.82 0.80 0.66
164: Water-----	100	Not rated		Not rated		Not rated	



# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Not limited		Not limited		Very limited Sodium content Salinity	1.00 1.00
2: Ant Flat-----	85	Not limited		Not limited		Not limited	
3: Ant Flat-----	85	Not limited		Not limited		Not limited	
4: Ant Flat-----	90	Not limited		Not limited		Somewhat limited Slope	0.01
5: Ant Flat-----	65	Not limited		Not limited		Not limited	
Oxford-----	25	Somewhat limited Too clayey	0.50	Somewhat limited Too clayey	0.50	Very limited Too clayey Slope	1.00 0.04
6: Ant Flat-----	50	Very limited Water erosion Slope	1.00 0.02	Very limited Water erosion	1.00	Very limited Slope	1.00
Oxford-----	35	Somewhat limited Too clayey Slope	0.50 0.02	Somewhat limited Too clayey	0.50	Very limited Slope Too clayey	1.00 1.00
7: Arbone-----	80	Not limited		Not limited		Not limited	
8: Banida-----	85	Not limited		Not limited		Not limited	
9: Banida-----	80	Not limited		Not limited		Not limited	
10: Battle Creek-----	85	Not limited		Not limited		Not limited	
11: Battle Creek-----	85	Not limited		Not limited		Not limited	
12: Battle Creek-----	95	Not limited		Not limited		Not limited	
13: Bear Lake-----	40	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.60

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
13: Chesbrook-----	30	Somewhat limited Depth to saturated zone	0.99	Somewhat limited Depth to saturated zone	0.99	Very limited Carbonate content Depth to saturated zone	1.00 0.99
Picabo-----	15	Not limited		Not limited		Very limited Sodium content Carbonate content	1.00 1.00
14: Bear Lake-----	50	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
Downata-----	35	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
15: Bear Lake-----	50	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
Downata-----	25	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
Thatcherflats-----	20	Not limited		Not limited		Very limited Sodium content	1.00
16: Bear Lake-----	65	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
Lago-----	30	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
17: Bearhollow-----	30	Very limited Slope Dusty	1.00 0.50	Somewhat limited Dusty Slope	0.50 0.08	Very limited Slope Gravel content	1.00 0.97
Brifox-----	25	Very limited Water erosion Slope Too clayey	1.00 1.00 0.50	Very limited Water erosion Too clayey Slope	1.00 0.50 0.08	Very limited Slope Too clayey	1.00 1.00
Iphil-----	20	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
18: Bergquist-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Rubble land-----	15	Not rated		Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Softback-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
20: Bergquist-----	55	Very limited Slope	1.00	Somewhat limited Slope	0.96	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Vitale-----	25	Very limited Slope Content of large stones	1.00 0.82	Somewhat limited Slope Content of large stones	0.96 0.82	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
21: Bothwell-----	80	Not limited		Not limited		Somewhat limited Slope	0.01
22: Bothwell-----	80	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
23: Bothwell-----	35	Very limited Water erosion Slope	1.00 0.02	Very limited Water erosion	1.00	Very limited Slope	1.00
Hades-----	30	Somewhat limited Slope	0.02	Not limited		Very limited Slope	1.00
Justesen-----	20	Very limited Water erosion Slope	1.00 0.02	Very limited Water erosion	1.00	Very limited Slope	1.00
24: Bothwell-----	40	Not limited		Not limited		Not limited	
Thatcher-----	35	Not limited		Not limited		Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
25: Brifox-----	40	Somewhat limited Too clayey	0.50	Somewhat limited Too clayey	0.50	Very limited Too clayey Slope	1.00 0.01
Huffman-----	35	Not limited		Not limited		Somewhat limited Slope	0.01
26: Brifox-----	40	Very limited Water erosion Slope Too clayey	1.00 0.68 0.50	Very limited Water erosion Too clayey	1.00 0.50	Very limited Slope Too clayey	1.00 1.00
Huffman-----	35	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
27: Brifox-----	55	Somewhat limited Too clayey	0.50	Somewhat limited Too clayey	0.50	Very limited Too clayey Slope	1.00 0.01
Niter-----	25	Not limited		Not limited		Somewhat limited Slope	0.01
28: Brifox-----	65	Very limited Water erosion Too clayey Slope	1.00 0.50 0.32	Very limited Water erosion Too clayey	1.00 0.50	Very limited Slope Too clayey	1.00 1.00
Niter-----	20	Very limited Water erosion Slope	1.00 0.32	Very limited Water erosion	1.00	Very limited Slope	1.00
29: Brifox-----	55	Very limited Slope Water erosion Too clayey	1.00 1.00 0.50	Very limited Water erosion Too clayey Slope	1.00 0.50 0.22	Very limited Slope Too clayey	1.00 1.00
Niter-----	25	Very limited Slope Water erosion	1.00 1.00	Very limited Water erosion Slope	1.00 0.22	Very limited Slope	1.00
30: Broadhead-----	30	Not limited		Not limited		Somewhat limited Slope	0.63
Hades-----	25	Not limited		Not limited		Somewhat limited Slope	0.63
Yago-----	25	Somewhat limited Content of large stones	0.86	Somewhat limited Content of large stones	0.86	Very limited Content of large stones Slope	1.00 0.63
31: Broadhead-----	40	Somewhat limited Slope	0.02	Not limited		Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
31: Yago-----	35	Somewhat limited Content of large stones Slope	0.86 0.02	Somewhat limited Content of large stones	0.86	Very limited Content of large stones Slope	1.00 1.00
32: Camelback-----	55	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content	1.00 1.00
Lonigan-----	25	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42
33: Camelback-----	40	Very limited Slope	1.00	Not limited		Very limited Slope Gravel content	1.00 1.00
Hades-----	20	Very limited Slope	1.00	Not limited		Very limited Slope	1.00
Valmar-----	20	Very limited Slope Content of large stones	1.00 0.08	Somewhat limited Content of large stones	0.08	Very limited Slope Content of large stones Depth to bedrock Droughty	1.00 1.00 0.90 0.63
34: Cedarhill-----	90	Somewhat limited Slope	0.02	Not limited		Very limited Slope Gravel content Droughty	1.00 1.00 0.61
35: Cedarhill-----	40	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content Droughty	1.00 1.00 0.61
Hades-----	25	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
Ricrest-----	20	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content	1.00 0.61
36: Cedarhill-----	35	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content Droughty	1.00 1.00 0.61

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
36: Hondoho-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
Ridgecrest-----	20	Very limited Slope Content of large stones	1.00 0.29	Somewhat limited Slope Content of large stones	0.78 0.29	Very limited Slope Content of large stones Carbonate content Droughty Depth to bedrock	1.00 1.00 1.00 0.98 0.71
37: Chesbrook-----	60	Somewhat limited Depth to saturated zone	0.99	Somewhat limited Depth to saturated zone	0.99	Very limited Carbonate content Depth to saturated zone	1.00 0.99
Bear Lake-----	20	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
38: Cloudless-----	50	Not limited		Not limited		Somewhat limited Slope	0.01
Hades-----	40	Not limited		Not limited		Somewhat limited Slope	0.01
39: Cloudless-----	35	Very limited Water erosion Slope	1.00 0.02	Very limited Water erosion	1.00	Very limited Slope	1.00
Hades-----	30	Somewhat limited Slope	0.02	Not limited		Very limited Slope	1.00
Howcan-----	20	Somewhat limited Slope	0.02	Not limited		Very limited Slope Gravel content Content of large stones	1.00 0.91 0.01
40: Copenhagen-----	35	Very limited Slope	1.00	Somewhat limited Slope	0.32	Very limited Depth to bedrock Droughty Slope Gravel content Content of large stones	1.00 1.00 1.00 0.98 0.61

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
40: Lonigan-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.32	Very limited Slope Gravel content Droughty Depth to bedrock	1.00 0.97 0.42 0.20
Manila-----	20	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.32	Very limited Slope	1.00
41: Delish-----	40	Not limited		Not limited		Somewhat limited Depth to saturated zone Salinity	0.19 0.13
Cachecan-----	25	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Not limited	
Stinkcreek-----	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Sodium content Depth to saturated zone	1.00 1.00
42: Downata-----	80	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
43: Dranburn-----	45	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.22	Very limited Slope	1.00
Robin-----	35	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.22	Very limited Slope	1.00
44: Enochville-----	75	Somewhat limited Depth to saturated zone Flooding	0.44 0.40	Somewhat limited Depth to saturated zone Flooding	0.44 0.40	Very limited Flooding Depth to saturated zone	1.00 0.75
45: Foxol-----	45	Very limited Slope Content of large stones	1.00 0.46	Somewhat limited Slope Content of large stones	0.96 0.46	Very limited Depth to bedrock Slope Content of large stones Droughty	1.00 1.00 1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
45: Vitale-----	30	Very limited Slope Content of large stones	1.00 0.82	Somewhat limited Slope Content of large stones	0.96 0.82	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
46: Hades-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Hondoho-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
47: Hades-----	25	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
Lanoak-----	25	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.78	Very limited Slope	1.00
Camelback-----	25	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content	1.00 1.00
48: Haploxerolls-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Droughty	1.00 0.99
Xerorthents-----	30	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
49: Hendricks-----	90	Not limited		Not limited		Somewhat limited Slope	0.01
50: Holmes-----	90	Not limited		Not limited		Somewhat limited Droughty Gravel content	0.35 0.01
51: Hondee-----	85	Not limited		Not limited		Somewhat limited Gravel content	0.97

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
52: Hondee-----	75	Not limited		Not limited		Somewhat limited Gravel content Slope	0.97 0.01
53: Hondoho-----	50	Not limited		Not limited		Somewhat limited Content of large stones Gravel content Slope	0.38 0.12 0.01
Hades-----	30	Not limited		Not limited		Somewhat limited Slope	0.01
54: Hondoho-----	50	Not limited		Not limited		Somewhat limited Slope Content of large stones Gravel content	0.63 0.38 0.12
Ricrest-----	40	Not limited		Not limited		Somewhat limited Gravel content Slope	0.61 0.01
55: Hondoho-----	35	Very limited Slope	1.00	Somewhat limited Slope	0.32	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
Sprollo-----	30	Very limited Slope Dusty	1.00 0.50	Somewhat limited Slope Dusty	0.78 0.50	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01
Hades-----	20	Somewhat limited Slope	0.32	Not limited		Very limited Slope	1.00
56: Hondoho-----	45	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
Vitale-----	30	Very limited Slope Content of large stones	1.00 0.82	Somewhat limited Content of large stones Slope	0.82 0.78	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
57: Huffman-----	80	Not limited		Not limited		Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
58: Huffman-----	80	Not limited		Not limited		Somewhat limited Slope	0.01
59: Huffman-----	45	Not limited		Not limited		Somewhat limited Slope	0.01
Dirtyhead-----	30	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Very limited Gravel content Droughty Depth to bedrock Slope	1.00 0.66 0.01 0.01
60: Huffman-----	35	Not limited		Not limited		Not limited	
Harroun-----	30	Not limited		Not limited		Very limited Depth to cemented pan Droughty Gravel content Content of large stones Slope	1.00 1.00 0.42 0.32 0.01
Lanoak-----	25	Not limited		Not limited		Not limited	
61: Huffman-----	45	Not limited		Not limited		Somewhat limited Slope	0.01
Wursten-----	35	Not limited		Not limited		Somewhat limited Slope	0.01
62: Iphil-----	60	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.96
Lonigan-----	20	Not limited		Not limited		Somewhat limited Gravel content Slope Depth to bedrock Droughty	0.97 0.96 0.90 0.42
63: Ireland-----	50	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Droughty Depth to bedrock Content of large stones Gravel content	1.00 0.99 0.95 0.95 0.72
Polumar-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Content of large stones Droughty	1.00 0.61 0.01 0.01

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
64: Kabear-----	50	Not limited		Not limited		Somewhat limited Slope	0.01
Staberg-----	25	Not limited		Not limited		Somewhat limited Depth to bedrock Slope	0.01 0.01
Copenhagen-----	15	Not limited		Not limited		Very limited Depth to bedrock Droughty Gravel content Content of large stones Slope	1.00 1.00 0.98 0.61 0.01
65: Kabear-----	50	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
Staberg-----	25	Somewhat limited Slope	0.68	Not limited		Very limited Slope Depth to bedrock	1.00 0.01
Copenhagen-----	15	Somewhat limited Slope	0.68	Not limited		Very limited Depth to bedrock Droughty Slope Gravel content Content of large stones	1.00 1.00 1.00 0.98 0.61
66: Kearns-----	80	Not limited		Not limited		Not limited	
67: Kearnsar-----	60	Not limited		Not limited		Not limited	
Battle Creek-----	25	Not limited		Not limited		Not limited	
68: Kidman-----	90	Not limited		Not limited		Not limited	
69: Kidman-----	85	Not limited		Not limited		Not limited	
70: Kidman-----	85	Very limited Slope	1.00	Somewhat limited Slope	0.22	Very limited Slope	1.00
71: Kidman, wet-----	85	Not limited		Not limited		Not limited	
72: Kidman-----	45	Not limited		Not limited		Not limited	
Sterling-----	30	Not limited		Not limited		Somewhat limited Gravel content Droughty	0.68 0.04

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73: Lando-----	75	Not limited		Not limited		Not limited	
74: Lanoak-----	75	Not limited		Not limited		Not limited	
75: Lanoak-----	75	Not limited		Not limited		Somewhat limited Slope	0.01
76: Lanoak-----	45	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
Broadhead-----	40	Somewhat limited Slope	0.68	Not limited		Very limited Slope	1.00
77: Lanoak-----	35	Very limited Slope Water erosion	1.00 1.00	Very limited Water erosion Slope	1.00 0.96	Very limited Slope	1.00
Broadhead-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.96	Very limited Slope	1.00
Hades-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
78: Lanoak-----	40	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.84
Hades-----	35	Not limited		Not limited		Somewhat limited Slope	0.84
79: Lanoak-----	60	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
Thatcher-----	25	Somewhat limited Slope	0.68	Not limited		Very limited Slope	1.00
80: Layton-----	85	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.21
81: Layton-----	80	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.21
82: Lizdale-----	80	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones Carbonate content Droughty	1.00 1.00 1.00 0.01

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
83: Lizdale-----	55	Somewhat limited Slope Content of large stones	0.68 0.08	Somewhat limited Content of large stones	0.08	Very limited Content of large stones Slope Carbonate content Droughty	1.00 1.00 1.00 0.01
Searla-----	35	Somewhat limited Slope	0.68	Not limited		Very limited Slope Gravel content	1.00 0.54
84: Logan-----	90	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
85: Lonigan-----	40	Very limited Slope	1.00	Somewhat limited Slope	0.01	Very limited Slope Gravel content Droughty Depth to bedrock	1.00 0.97 0.42 0.20
Lizdale-----	40	Somewhat limited Slope Content of large stones	0.18 0.08	Somewhat limited Content of large stones	0.08	Very limited Content of large stones Slope Carbonate content Droughty	1.00 1.00 1.00 0.01
86: Lonigan-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42
Ricrest-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.61
87: Manila-----	85	Not limited		Not limited		Not limited	
88: Manila-----	80	Not limited		Not limited		Somewhat limited Slope	0.01
89: Manila-----	85	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
90: Manila-----	50	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.37
Bancroft-----	30	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.37

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
91: Manila-----	50	Not limited		Not limited		Somewhat limited Slope	0.01
Broadhead-----	25	Not limited		Not limited		Somewhat limited Slope	0.01
92: Manila-----	40	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
Broadhead-----	35	Somewhat limited Slope	0.68	Not limited		Very limited Slope	1.00
93: Manila-----	50	Very limited Water erosion Slope	1.00 0.92	Very limited Water erosion	1.00	Very limited Slope	1.00
Lonigan-----	30	Somewhat limited Slope	0.92	Not limited		Very limited Slope Gravel content Droughty Depth to bedrock	1.00 0.97 0.42 0.20
94: Manila-----	55	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.84
Yeates Hollow-----	30	Not limited		Not limited		Somewhat limited Slope Content of large stones	0.84 0.38
95: Maplecreek-----	95	Not limited		Not limited		Not limited	
96: Maplecreek-----	45	Not limited		Not limited		Not limited	
Layton-----	35	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.21
97: Merkley-----	45	Not limited		Not limited		Not limited	
Lago-----	20	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
Bear Lake-----	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Flooding	1.00 0.60
98: Moonlight-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00



# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
98: Camelback-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
99: Niter-----	60	Not limited		Not limited		Not limited	
Brifox-----	20	Somewhat limited Too clayey	0.50	Somewhat limited Too clayey	0.50	Very limited Too clayey	1.00
100: Northwater-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
Foxol-----	25	Very limited Slope Content of large stones	1.00 0.46	Very limited Slope Content of large stones	1.00 0.46	Very limited Depth to bedrock Slope Content of large stones Droughty	1.00 1.00 1.00 1.00
Vitale-----	20	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
101: Northwater-----	65	Very limited Slope	1.00	Not limited		Very limited Slope Droughty Gravel content	1.00 0.30 0.26
Povey-----	25	Somewhat limited Slope	0.50	Not limited		Very limited Slope Gravel content	1.00 0.01
102: Northwater-----	65	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
Povey-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.01
103: Nyman-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Depth to bedrock	1.00 0.05

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
103: Lonigan-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42
Copenhagen-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.98 0.61
104: Oxford-----	45	Somewhat limited Too clayey	0.50	Somewhat limited Too clayey	0.50	Very limited Too clayey	1.00
Banida-----	35	Not limited		Not limited		Not limited	
105: Oxford-----	45	Somewhat limited Too clayey	0.50	Somewhat limited Too clayey	0.50	Very limited Too clayey Slope	1.00 0.01
Banida-----	35	Not limited		Not limited		Somewhat limited Slope	0.01
106: Oxford-----	50	Somewhat limited Slope Too clayey	0.68 0.50	Somewhat limited Too clayey	0.50	Very limited Slope Too clayey	1.00 1.00
Banida-----	35	Somewhat limited Slope	0.68	Not limited		Very limited Slope	1.00
107: Oxford-----	65	Very limited Slope Too clayey	1.00 0.50	Somewhat limited Slope Too clayey	0.78 0.50	Very limited Slope Too clayey	1.00 1.00
Gullied land-----	15	Not rated		Not rated		Not rated	
108: Parkay-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Povey-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.01
109: Parleys-----	85	Not limited		Not limited		Not limited	
110: Parleys-----	85	Not limited		Not limited		Not limited	
111: Parleys, wet-----	90	Not limited		Not limited		Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
112: Pavohroo-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope	1.00
Sedgway-----	30	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.78	Very limited Slope	1.00
Toponce-----	20	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion	1.00	Very limited Slope	1.00
113: Picabo-----	45	Not limited		Not limited		Very limited Sodium content Carbonate content	1.00 1.00
Thatcherflats-----	30	Not limited		Not limited		Very limited Sodium content	1.00
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Not limited		Not limited		Somewhat limited Slope	0.01
116: Pollynot-----	75	Not limited		Not limited		Not limited	
117: Pollynot-----	75	Not limited		Not limited		Not limited	
118: Pollynot-----	75	Very limited Water erosion	1.00	Very limited Water erosion	1.00	Somewhat limited Slope	0.63
119: Polumar-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Content of large stones Droughty	1.00 0.61 0.01 0.01
Ireland-----	30	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Droughty Depth to bedrock Content of large stones Gravel content	1.00 0.99 0.95 0.95 0.72
120: Polumar-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Content of large stones Droughty	1.00 0.61 0.01 0.01

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
120: Sprollo-----	30	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01
Ireland-----	20	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Droughty Depth to bedrock Content of large stones Gravel content	1.00 0.99 0.95 0.95 0.72
121: Povey-----	35	Very limited Slope	1.00	Somewhat limited Slope	0.22	Very limited Slope Gravel content	1.00 0.01
Hades-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.22	Very limited Slope	1.00
Hondoho-----	15	Very limited Slope	1.00	Somewhat limited Slope	0.22	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
122: Povey-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.01
Parkay-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
123: Preston-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Somewhat limited Droughty	0.61
124: Preston-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Somewhat limited Droughty	0.61
125: Preston-----	85	Very limited Too sandy Slope	1.00 0.18	Very limited Too sandy	1.00	Very limited Slope Droughty	1.00 0.61
126: Preston-----	55	Very limited Slope Too sandy	1.00 1.00	Very limited Too sandy Slope	1.00 1.00	Very limited Slope Droughty	1.00 0.61

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
126: Xerorthents-----	20	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
127: Ricrest-----	90	Not limited		Not limited		Somewhat limited Gravel content Slope	0.61 0.01
128: Sanyon-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Depth to bedrock Slope Droughty Gravel content	1.00 1.00 1.00 1.00
Staberg-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Depth to bedrock	1.00 0.01
Kabear-----	20	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 0.78	Very limited Slope	1.00
129: Smidale-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
130: Smidale-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Staberg-----	40	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Depth to bedrock	1.00 0.01
131: Sprollo-----	45	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01
Hondoho-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
132: Sprollo-----	40	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01
Hymas-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Depth to bedrock Slope Droughty Gravel content Carbonate content	1.00 1.00 1.00 1.00 1.00
133: Sterling-----	85	Not limited		Not limited		Somewhat limited Gravel content Droughty	0.68 0.04
134: Sterling-----	85	Not limited		Not limited		Somewhat limited Gravel content Droughty	0.68 0.04
135: Sterling-----	90	Not limited		Not limited		Very limited Slope Gravel content Droughty	1.00 0.68 0.04
136: Sterling-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Droughty	1.00 0.68 0.04
137: Sterling-----	50	Not limited		Not limited		Somewhat limited Gravel content Droughty	0.68 0.04
Parleys-----	30	Not limited		Not limited		Not limited	
138: Thatcher-----	45	Not limited		Not limited		Somewhat limited Slope	0.84
Bearhollow-----	35	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Gravel content Slope	0.97 0.84
139: Toponce-----	50	Very limited Water erosion Slope	1.00 0.18	Very limited Water erosion	1.00	Very limited Slope	1.00
Broadhead-----	30	Somewhat limited Slope	0.18	Not limited		Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
140: Trenton-----	50	Not limited		Not limited		Very limited Sodium content	1.00
Battle Creek-----	40	Not limited		Not limited		Not limited	
141: Trenton, cool-----	50	Not limited		Not limited		Very limited Sodium content	1.00
Battle Creek, cool--	40	Not limited		Not limited		Not limited	
142: Trenton-----	45	Not limited		Not limited		Very limited Sodium content	1.00
Parleys-----	35	Not limited		Not limited		Not limited	
143: Valmar-----	40	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones Depth to bedrock Droughty	1.00 1.00 0.90 0.63
Camelback-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
144: Vitale-----	40	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Content of large stones	1.00 0.82	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
Bergquist-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Rock outcrop-----	15	Not rated		Not rated		Not rated	
145: Vitale-----	35	Very limited Slope Content of large stones	1.00 0.82	Somewhat limited Content of large stones Slope	0.82 0.01	Very limited Droughty Content of large stones Slope Depth to bedrock	1.00 1.00 1.00 0.99



# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
145: Yeates Hollow-----	25	Somewhat limited Slope	0.02	Not limited		Very limited Slope Content of large stones	1.00 0.38
Northwater-----	15	Very limited Slope	1.00	Somewhat limited Slope	0.22	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
146: Welby-----	90	Not limited		Not limited		Very limited Sodium content	1.00
147: Welby-----	90	Not limited		Not limited		Very limited Sodium content	1.00
148: Welby, wet-----	85	Not limited		Not limited		Not limited	
149: Collinston-----	40	Not limited		Not limited		Somewhat limited Slope	0.01
Wheelon-----	40	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Slope	0.01
150: Wheelon-----	40	Very limited Water erosion Dusty Slope	1.00 0.50 0.02	Very limited Water erosion Dusty	1.00 0.50	Very limited Slope	1.00
Collinston-----	35	Very limited Water erosion Slope	1.00 0.02	Very limited Water erosion	1.00	Very limited Slope	1.00
151: Wheelon-----	45	Very limited Water erosion Slope Dusty	1.00 1.00 0.50	Very limited Water erosion Slope Dusty	1.00 1.00 0.50	Very limited Slope	1.00
Collinston-----	30	Very limited Water erosion Slope	1.00 1.00	Very limited Water erosion Slope	1.00 1.00	Very limited Slope	1.00
152: Windernot-----	40	Not limited		Not limited		Somewhat limited Droughty Gravel content	0.88 0.68
Lewnot-----	20	Not limited		Not limited		Not limited	
Stinkcreek-----	15	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Sodium content Depth to saturated zone	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
153: Winn-----	90	Not limited		Not limited		Not limited	
154: Winwell-----	80	Not limited		Not limited		Not limited	
155: Winwell-----	45	Not limited		Not limited		Not limited	
Collinston-----	35	Not limited		Not limited		Not limited	
156: Wormcreek-----	50	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Slope Gravel content Content of large stones	1.00 0.71 0.03
Copenhagen-----	30	Very limited Slope	1.00	Somewhat limited Slope	0.78	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.98 0.61
157: Wormcreek-----	45	Very limited Slope	1.00	Somewhat limited Slope	0.96	Very limited Slope Gravel content Content of large stones	1.00 0.71 0.03
Lonigan-----	35	Very limited Slope	1.00	Somewhat limited Slope	0.56	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42
158: Wursten-----	45	Somewhat limited Slope	0.68	Not limited		Very limited Slope	1.00
Dirtyhead-----	35	Somewhat limited Slope Dusty	0.68 0.50	Somewhat limited Dusty	0.50	Very limited Slope Gravel content Droughty Depth to bedrock	1.00 1.00 0.66 0.01
159: Xerochrepts-----	30	Very limited Water erosion Slope Dusty	1.00 1.00 0.50	Very limited Water erosion Dusty Slope	1.00 0.50 0.22	Very limited Slope	1.00
Wormcreek-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content Content of large stones	1.00 0.71 0.03

# Soil Survey of Franklin County Area, Idaho

Table 9.--Recreational Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
159: Xerorthents-----	20	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
160: Xerorthents-----	75	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
161: Yeates Hollow-----	85	Somewhat limited Slope	0.98	Not limited		Very limited Slope Content of large stones	1.00 0.38
162: Yeates Hollow-----	40	Very limited Slope	1.00	Somewhat limited Slope	0.01	Very limited Slope Content of large stones	1.00 0.38
Manila-----	25	Very limited Water erosion Slope	1.00 0.68	Very limited Water erosion	1.00	Very limited Slope	1.00
Softback-----	15	Very limited Slope	1.00	Somewhat limited Slope	0.01	Very limited Slope	1.00
163: Yeates Hollow-----	45	Very limited Slope	1.00	Somewhat limited Slope	0.96	Very limited Slope Content of large stones	1.00 0.38
Vitale-----	35	Very limited Slope Content of large stones	1.00 0.82	Somewhat limited Slope Content of large stones	0.96 0.82	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.80
164: Water-----	100	Not rated		Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.99 0.50	Very limited Flooding Shrink-swell	1.00 0.50
2: Ant Flat-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
3: Ant Flat-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
4: Ant Flat-----	90	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
5: Ant Flat-----	65	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.50
Oxford-----	25	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Slope	1.00 1.00
6: Ant Flat-----	50	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Oxford-----	35	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
7: Arbone-----	80	Not limited		Not limited		Not limited	
8: Banida-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
9: Banida-----	80	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
10: Battle Creek-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.24	Very limited Shrink-swell	1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
11: Battle Creek-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.24	Very limited Shrink-swell	1.00
12: Battle Creek-----	95	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.50
13: Bear Lake-----	40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
Chesbrook-----	30	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50
Picabo-----	15	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
14: Bear Lake-----	50	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Downata-----	35	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50
15: Bear Lake-----	50	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Downata-----	25	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50
Thatcherflats-----	20	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 1.00 0.82	Very limited Flooding Shrink-swell	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
16: Bear Lake-----	65	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Lago-----	30	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.07	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.07
17: Bearhollow-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Brifox-----	25	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Iphil-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
18: Bergquist-----	60	Very limited Slope	1.00	Very limited Slope Depth to hard bedrock	1.00 0.13	Very limited Slope	1.00
Rubble land-----	15	Not rated		Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope	1.00	Very limited Slope Depth to hard bedrock	1.00 0.13	Very limited Slope	1.00
Softback-----	30	Very limited Slope Content of large stones	1.00 0.12	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.12	Very limited Slope Content of large stones	1.00 0.12
20: Bergquist-----	55	Very limited Slope	1.00	Very limited Slope Depth to hard bedrock	1.00 0.13	Very limited Slope	1.00
Vitale-----	25	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50
21: Bothwell-----	80	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
22: Bothwell-----	80	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
23: Bothwell-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Hades-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Justesen-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
24: Bothwell-----	40	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Slope Shrink-swell	0.50 0.50
Thatcher-----	35	Not limited		Not limited		Somewhat limited Slope	0.50
25: Brifox-----	40	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
Huffman-----	35	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
26: Brifox-----	40	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Huffman-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
27: Brifox-----	55	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
Niter-----	25	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
28: Brifox-----	65	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Niter-----	20	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
29: Brifox-----	55	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Niter-----	25	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
30: Broadhead-----	30	Very limited Shrink-swell Slope	1.00 0.63	Very limited Shrink-swell Slope	1.00 0.63	Very limited Shrink-swell Slope	1.00 1.00
Hades-----	25	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
Yago-----	25	Very limited Shrink-swell Content of large stones Slope	1.00 1.00 0.63	Very limited Shrink-swell Content of large stones Slope	1.00 1.00 0.63	Very limited Shrink-swell Content of large stones Slope	1.00 1.00 1.00
31: Broadhead-----	40	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Yago-----	35	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 1.00	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 1.00	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 1.00
32: Camelback-----	55	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Lonigan-----	25	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.90	Very limited Slope	1.00
33: Camelback-----	40	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Valmar-----	20	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.90 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.90 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34: Cedarhill-----	90	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
35: Cedarhill-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Ricrest-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
36: Cedarhill-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hondoho-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Ridgecrest-----	20	Very limited Slope Content of large stones Depth to hard bedrock	1.00 1.00 0.71	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00	Very limited Slope Content of large stones Depth to hard bedrock	1.00 1.00 0.71
37: Chesbrook-----	60	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50
Bear Lake-----	20	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
38: Cloudless-----	50	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
Hades-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
39: Cloudless-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Hades-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Howcan-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
40: Copenhagen-----	35	Very limited Depth to hard bedrock Slope	1.00  1.00	Very limited Depth to hard bedrock Slope	1.00  1.00	Very limited Slope Depth to hard bedrock	1.00  1.00
Lonigan-----	30	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.20	Very limited Slope	1.00
Manila-----	20	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
41: Delish-----	40	Very limited Flooding Depth to saturated zone	1.00 0.39	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.39
Cachecan-----	25	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.95 0.50	Very limited Flooding	1.00
Stinkcreek-----	15	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
42: Downata-----	80	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50
43: Dranburn-----	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Robin-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
44: Enochville-----	75	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.98 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.98 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
45: Foxol-----	45	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00
Vitale-----	30	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50
46: Hades-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Hondoho-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
47: Hades-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Lanoak-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	25	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
48: Haploxerolls-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Xerorthents-----	30	Very limited Slope Depth to soft bedrock Content of large stones	1.00 0.50 0.04	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.04	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.04
49: Hendricks-----	90	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
50: Holmes-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
51: Hondee-----	85	Not limited		Not limited		Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
52: Hondee-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
53: Hondoho-----	50	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
Hades-----	30	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
54: Hondoho-----	50	Somewhat limited Slope Shrink-swell	0.63 0.50	Somewhat limited Slope Shrink-swell	0.63 0.50	Very limited Slope Shrink-swell	1.00 0.50
Ricrest-----	40	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
55: Hondoho-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Sprollo-----	30	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.26 0.01	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.26	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.26 0.01
Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
56: Hondoho-----	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Vitale-----	30	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50
57: Huffman-----	80	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
58: Huffman-----	80	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
59: Huffman-----	45	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
Dirtyhead-----	30	Somewhat limited Slope	0.01	Somewhat limited Depth to soft bedrock Slope	0.01 0.01	Very limited Slope	1.00
60: Huffman-----	35	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Slope Shrink-swell	0.50 0.50
Harroun-----	30	Somewhat limited Depth to thin cemented pan Slope	0.50 0.01	Very limited Depth to thin cemented pan Slope	1.00 0.01	Very limited Depth to thin cemented pan Slope	1.00 1.00
Lanoak-----	25	Not limited		Not limited		Not limited	
61: Huffman-----	45	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
Wursten-----	35	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
62: Iphil-----	60	Somewhat limited Slope	0.96	Somewhat limited Slope	0.96	Very limited Slope	1.00
Lonigan-----	20	Somewhat limited Slope	0.96	Somewhat limited Slope Depth to soft bedrock	0.96 0.90	Very limited Slope	1.00
63: Ireland-----	50	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.95 0.52	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.52	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.95 0.52
Polumar-----	25	Very limited Slope Content of large stones	1.00 0.88	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.88 0.77	Very limited Slope Content of large stones	1.00 0.88
64: Kabear-----	50	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
64: Staberg-----	25	Somewhat limited Slope	0.01	Somewhat limited Depth to soft bedrock Slope	0.01 0.01	Very limited Slope	1.00
Copenhagen-----	15	Very limited Depth to hard bedrock Slope	1.00 0.01	Very limited Depth to hard bedrock Slope	1.00 0.01	Very limited Depth to hard bedrock Slope	1.00 1.00
65: Kabear-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Staberg-----	25	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.01	Very limited Slope	1.00
Copenhagen-----	15	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00
66: Kearns-----	80	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
67: Kearnsar-----	60	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.24	Somewhat limited Shrink-swell	0.50
Battle Creek-----	25	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.24	Very limited Shrink-swell	1.00
68: Kidman-----	90	Not limited		Not limited		Not limited	
69: Kidman-----	85	Not limited		Not limited		Not limited	
70: Kidman-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
71: Kidman, wet-----	85	Not limited		Somewhat limited Depth to saturated zone	0.24	Not limited	
72: Kidman-----	45	Not limited		Not limited		Not limited	
Sterling-----	30	Not limited		Not limited		Not limited	



# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
73: Lando-----	75	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to saturated zone Shrink-swell	0.95 0.50	Somewhat limited Shrink-swell	0.50
74: Lanoak-----	75	Not limited		Not limited		Not limited	
75: Lanoak-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
76: Lanoak-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Broadhead-----	40	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
77: Lanoak-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Broadhead-----	30	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Hades-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
78: Lanoak-----	40	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
Hades-----	35	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
79: Lanoak-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Thatcher-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
80: Layton-----	85	Not limited		Somewhat limited Depth to saturated zone	0.47	Not limited	
81: Layton-----	80	Not limited		Somewhat limited Depth to saturated zone	0.47	Not limited	
82: Lizdale-----	80	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
83: Lizdale-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Searla-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
84: Logan-----	90	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50
85: Lonigan-----	40	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.20	Very limited Slope	1.00
Lizdale-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
86: Lonigan-----	45	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.90	Very limited Slope	1.00
Ricrest-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
87: Manila-----	85	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
88: Manila-----	80	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
89: Manila-----	85	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
90: Manila-----	50	Very limited Shrink-swell Slope	1.00 0.37	Very limited Shrink-swell Slope	1.00 0.37	Very limited Shrink-swell Slope	1.00 1.00
Bancroft-----	30	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
91: Manila-----	50	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
91: Broadhead-----	25	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
92: Manila-----	40	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Broadhead-----	35	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
93: Manila-----	50	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00
Lonigan-----	30	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.20	Very limited Slope	1.00
94: Manila-----	55	Very limited Shrink-swell Slope	1.00 0.84	Very limited Shrink-swell Slope	1.00 0.84	Very limited Shrink-swell Slope	1.00 1.00
Yeates Hollow-----	30	Very limited Shrink-swell Slope Content of large stones	1.00 0.84 0.19	Very limited Shrink-swell Slope Content of large stones	1.00 0.84 0.19	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19
95: Maplecreek-----	95	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.99	Very limited Flooding	1.00
96: Maplecreek-----	45	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.99	Very limited Flooding	1.00
Layton-----	35	Not limited		Somewhat limited Depth to saturated zone	0.47	Not limited	
97: Merkley-----	45	Not limited		Somewhat limited Depth to saturated zone	0.15	Not limited	
Lago-----	20	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.07	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.07

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
97: Bear Lake-----	15	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
98: Moonlight-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
99: Niter-----	60	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Brifox-----	20	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
100: Northwater-----	35	Very limited Slope Content of large stones	1.00 0.31	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.77 0.31	Very limited Slope Content of large stones	1.00 0.31
Foxol-----	25	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 1.00
Vitale-----	20	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50
101: Northwater-----	65	Very limited Slope Content of large stones	1.00 0.31	Very limited Slope Content of large stones	1.00 0.31	Very limited Slope Content of large stones	1.00 0.31
Povey-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
102: Northwater-----	65	Very limited Slope Content of large stones	1.00 0.31	Very limited Slope Content of large stones	1.00 0.31	Very limited Slope Content of large stones	1.00 0.31
Povey-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
103: Nyman-----	50	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.13 0.05	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.13	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.13 0.05
Lonigan-----	20	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.90	Very limited Slope	1.00
Copenhagen-----	15	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00
104: Oxford-----	45	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Banida-----	35	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
105: Oxford-----	45	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
Banida-----	35	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
106: Oxford-----	50	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Banida-----	35	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
107: Oxford-----	65	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
Gullied land-----	15	Not rated		Not rated		Not rated	
108: Parkay-----	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 0.68 0.50	Very limited Slope Shrink-swell	1.00 0.50
Povey-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
109: Parleys-----	85	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
110: Parleys-----	85	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Slope Shrink-swell	0.50 0.50
111: Parleys, wet-----	90	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.15	Very limited Flooding Shrink-swell	1.00 0.50
112: Pavohroo-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Sedgway-----	30	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.38	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.38	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.38
Toponce-----	20	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
113: Picabo-----	45	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
Thatcherflats-----	30	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 1.00 0.82	Very limited Flooding Shrink-swell	1.00 1.00
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Slope	1.00
116: Pollynot-----	75	Not limited		Not limited		Not limited	
117: Pollynot-----	75	Not limited		Not limited		Not limited	
118: Pollynot-----	75	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
119: Polumar-----	45	Very limited Slope Content of large stones	1.00 0.88	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.88 0.77	Very limited Slope Content of large stones	1.00 0.88
Ireland-----	30	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.95 0.52	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.52	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.95 0.52
120: Polumar-----	30	Very limited Slope Content of large stones	1.00 0.88	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.88 0.77	Very limited Slope Content of large stones	1.00 0.88
Sprollo-----	30	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.26 0.01	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.26	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.26 0.01
Ireland-----	20	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.95 0.52	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.52	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.95 0.52
121: Povey-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Hondoho-----	15	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
122: Povey-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Parkay-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 0.68 0.50	Very limited Slope Shrink-swell	1.00 0.50
123: Preston-----	90	Not limited		Not limited		Not limited	



# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
124: Preston-----	90	Not limited		Not limited		Not limited	
125: Preston-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
126: Preston-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Xerorthents-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Content of large stones	0.04	Content of large stones	0.04	Content of large stones	0.04
127: Ricrest-----	90	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
128: Sanyon-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Staberg-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
				Depth to soft bedrock	0.01		
Kabear-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
129: Smidale-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Content of large stones	0.05	Content of large stones	0.05	Content of large stones	0.05
130: Smidale-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Content of large stones	0.05	Content of large stones	0.05	Content of large stones	0.05
Staberg-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
				Depth to soft bedrock	0.01		
131: Sprollow-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Content of large stones	0.26	Depth to hard bedrock	1.00	Content of large stones	0.26
		Depth to hard bedrock	0.01	Content of large stones	0.26	Depth to hard bedrock	0.01

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
131: Hondoho-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
132: Sprollo-----	40	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.26 0.01	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.26	Very limited Slope Content of large stones Depth to hard bedrock	1.00 0.26 0.01
Hymas-----	35	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.01	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.01	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.01
133: Sterling-----	85	Not limited		Not limited		Not limited	
134: Sterling-----	85	Not limited		Not limited		Somewhat limited Slope	0.88
135: Sterling-----	90	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
136: Sterling-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
137: Sterling-----	50	Not limited		Not limited		Not limited	
Parleys-----	30	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
138: Thatcher-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
Bearhollow-----	35	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
139: Toponce-----	50	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00
Broadhead-----	30	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
140: Trenton-----	50	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to saturated zone Shrink-swell	0.95 0.50	Somewhat limited Shrink-swell	0.50
Battle Creek-----	40	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.24	Very limited Shrink-swell	1.00
141: Trenton, cool-----	50	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to saturated zone Shrink-swell	0.95 0.50	Somewhat limited Shrink-swell	0.50
Battle Creek, cool--	40	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.24	Very limited Shrink-swell	1.00
142: Trenton-----	45	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to saturated zone Shrink-swell	0.95 0.50	Somewhat limited Shrink-swell	0.50
Parleys-----	35	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.15	Very limited Flooding Shrink-swell	1.00 0.50
143: Valmar-----	40	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.90 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.90 0.50
Camelback-----	25	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Hades-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
144: Vitale-----	40	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.64 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
144: Bergquist-----	25	Very limited Slope	1.00	Very limited Slope Depth to hard bedrock	1.00 0.13	Very limited Slope	1.00
Rock outcrop-----	15	Not rated		Not rated		Not rated	
145: Vitale-----	35	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.99 0.50	Very limited Depth to hard bedrock Slope Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.99 0.50
Yeates Hollow-----	25	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.19
Northwater-----	15	Very limited Slope Content of large stones	1.00 0.31	Very limited Slope Depth to hard bedrock Content of large stones	1.00 0.77 0.31	Very limited Slope Content of large stones	1.00 0.31
146: Welby-----	90	Not limited		Not limited		Not limited	
147: Welby-----	90	Not limited		Not limited		Not limited	
148: Welby, wet-----	85	Not limited		Somewhat limited Depth to saturated zone	0.15	Not limited	
149: Collinston-----	40	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
Wheelon-----	40	Somewhat limited Shrink-swell Slope	0.50 0.01	Somewhat limited Shrink-swell Slope	0.50 0.01	Very limited Slope Shrink-swell	1.00 0.50
150: Wheelon-----	40	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Collinston-----	35	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
151: Wheelon-----	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Collinston-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
152: Windernot-----	40	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.08	Very limited Flooding	1.00
Lewnot-----	20	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.99	Very limited Flooding	1.00
Stinkcreek-----	15	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
153: Winn-----	90	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
154: Winwell-----	80	Very limited Shrink-swell	1.00	Not limited		Very limited Shrink-swell	1.00
155: Winwell-----	45	Very limited Shrink-swell	1.00	Not limited		Very limited Shrink-swell Slope	1.00 0.12
Collinston-----	35	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
156: Wormcreek-----	50	Very limited Slope Content of large stones	1.00 0.13	Very limited Slope Content of large stones	1.00 0.13	Very limited Slope Content of large stones	1.00 0.13
Copenhagen-----	30	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 1.00
157: Wormcreek-----	45	Very limited Slope Content of large stones	1.00 0.13	Very limited Slope Content of large stones	1.00 0.13	Very limited Slope Content of large stones	1.00 0.13

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
157: Lonigan-----	35	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.90	Very limited Slope	1.00
158: Wursten-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Dirtyhead-----	35	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.01	Very limited Slope	1.00
159: Xerochrepts-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Wormcreek-----	25	Very limited Slope Content of large stones	1.00 0.13	Very limited Slope Content of large stones	1.00 0.13	Very limited Slope Content of large stones	1.00 0.13
Xerorthents-----	20	Very limited Slope Depth to soft bedrock Content of large stones	1.00 0.50 0.04	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.04	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.04
160: Xerorthents-----	75	Very limited Slope Depth to soft bedrock Content of large stones	1.00 0.50 0.04	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.04	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.04
161: Yeates Hollow-----	85	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.19
162: Yeates Hollow-----	40	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.19	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.19
Manila-----	25	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 10.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
162: Softback-----	15	Very limited Slope Content of large stones	1.00 0.12	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.12	Very limited Slope Content of large stones	1.00 0.12
163: Yeates Hollow-----	45	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.19	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.19	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.19
Vitale-----	35	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.79 0.50	Very limited Slope Depth to hard bedrock Content of large stones Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell	1.00 1.00 0.79 0.50
164: Water-----	100	Not rated		Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Frost action Low strength Shrink-swell Flooding	1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Cutbanks cave	0.99 0.10	Very limited Sodium content Salinity	1.00 1.00
2: Ant Flat-----	85	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
3: Ant Flat-----	85	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
4: Ant Flat-----	90	Very limited Low strength Shrink-swell Frost action Slope	1.00 1.00 0.50 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.12 0.10 0.01	Somewhat limited Slope	0.01
5: Ant Flat-----	65	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Oxford-----	25	Very limited Low strength Shrink-swell Frost action Slope	1.00 1.00 0.50 0.04	Somewhat limited Too clayey Cutbanks cave Slope	0.99 0.10 0.04	Very limited Too clayey Slope	1.00 0.04
6: Ant Flat-----	50	Very limited Low strength Shrink-swell Slope Frost action	1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	1.00 0.12 0.10	Very limited Slope	1.00
Oxford-----	35	Very limited Low strength Shrink-swell Slope Frost action	1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	1.00 0.99 0.10	Very limited Slope Too clayey	1.00 1.00
7: Arbone-----	80	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	



# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8: Banida-----	85	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
9: Banida-----	80	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
10: Battle Creek-----	85	Very limited Frost action Low strength Shrink-swell	1.00 1.00 1.00	Somewhat limited Too clayey Depth to saturated zone Cutbanks cave	0.50 0.24 0.10	Not limited	
11: Battle Creek-----	85	Very limited Frost action Low strength Shrink-swell	1.00 1.00 1.00	Somewhat limited Too clayey Depth to saturated zone Cutbanks cave	0.50 0.24 0.10	Not limited	
12: Battle Creek-----	95	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
13: Bear Lake-----	40	Very limited Depth to saturated zone Frost action Flooding Low strength Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding Cutbanks cave	1.00 1.00 0.60 0.10	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.60
Chesbrook-----	30	Very limited Frost action Low strength Depth to saturated zone Shrink-swell Flooding	1.00 1.00 0.99 0.50 0.40	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Very limited Carbonate content Depth to saturated zone	1.00 0.99
Picabo-----	15	Very limited Frost action Flooding Low strength	1.00 0.40 0.22	Somewhat limited Depth to saturated zone Cutbanks cave	0.95 0.10	Very limited Sodium content Carbonate content	1.00 1.00
14: Bear Lake-----	50	Very limited Depth to saturated zone Frost action Flooding Low strength	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.80 0.10	Very limited Flooding Depth to saturated zone	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14: Downata-----	35	Very limited Depth to saturated zone Frost action Flooding Low strength Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding Cutbanks cave	1.00 1.00 0.80 0.10	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
15: Bear Lake-----	50	Very limited Depth to saturated zone Frost action Flooding Low strength	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.80 0.10	Very limited Flooding Depth to saturated zone	1.00 1.00
Downata-----	25	Very limited Depth to saturated zone Frost action Flooding Low strength Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding Cutbanks cave	1.00 1.00 0.80 0.10	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
Thatcherflats-----	20	Very limited Frost action Low strength Shrink-swell Flooding	1.00 1.00 1.00 0.40	Somewhat limited Depth to saturated zone Cutbanks cave	0.82 0.10	Very limited Sodium content	1.00
16: Bear Lake-----	65	Very limited Depth to saturated zone Frost action Flooding Low strength	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Very limited Depth to saturated zone Flooding	1.00 0.60
Lago-----	30	Very limited Frost action Low strength Shrink-swell Flooding Depth to saturated zone	1.00 1.00 0.50 0.40 0.03	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Depth to saturated zone	0.03
17: Bearhollow-----	30	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 0.97
Brifox-----	25	Very limited Shrink-swell Slope Low strength Frost action	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.41	Very limited Slope Too clayey	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
17: Iphil-----	20	Very limited Slope Frost action	1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
18: Bergquist-----	60	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to hard bedrock	1.00 1.00 0.13	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Rubble land-----	15	Not rated		Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to hard bedrock	1.00 1.00 0.13	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Softback-----	30	Very limited Slope Frost action Content of large stones	1.00 0.50 0.12	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.12	Very limited Slope	1.00
20: Bergquist-----	55	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to hard bedrock	1.00 1.00 0.13	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Vitale-----	25	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	1.00 1.00 0.64 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.10	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
21: Bothwell-----	80	Very limited Frost action Low strength Shrink-swell Slope	1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
22: Bothwell-----	80	Very limited Frost action Low strength Slope Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23: Bothwell-----	35	Very limited Frost action Low strength Slope Shrink-swell	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
Hades-----	30	Very limited Slope Low strength Frost action	 1.00 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope	 1.00
Justesen-----	20	Very limited Low strength Slope Shrink-swell Frost action	 1.00 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
24: Bothwell-----	40	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 0.50	Somewhat limited Cutbanks cave	 0.10	Not limited	
Thatcher-----	35	Very limited Frost action Low strength	 1.00 1.00	Somewhat limited Cutbanks cave	 0.10	Not limited	
25: Brifox-----	40	Very limited Shrink-swell Low strength Frost action Slope	 1.00 1.00 0.50 0.01	Very limited Cutbanks cave Too clayey Slope	 1.00 0.41 0.01	Very limited Too clayey Slope	 1.00 0.01
Huffman-----	35	Very limited Frost action Low strength Shrink-swell Slope	 1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	 0.10 0.01	Somewhat limited Slope	 0.01
26: Brifox-----	40	Very limited Shrink-swell Low strength Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	 1.00 1.00 0.41	Very limited Slope Too clayey	 1.00 1.00
Huffman-----	35	Very limited Frost action Low strength Slope Shrink-swell	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
27: Brifox-----	55	Very limited Shrink-swell Low strength Frost action Slope	 1.00 1.00 0.50 0.01	Very limited Cutbanks cave Too clayey Slope	 1.00 0.41 0.01	Very limited Too clayey Slope	 1.00 0.01

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
27: Niter-----	25	Very limited Shrink-swell Low strength Frost action Slope	 1.00 1.00 0.50 0.01	Very limited Cutbanks cave Too clayey Slope	 1.00 0.15 0.01	Somewhat limited Slope	    0.01
28: Brifox-----	65	Very limited Shrink-swell Low strength Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	 1.00 1.00 0.41	Very limited Slope Too clayey	 1.00 1.00
Niter-----	20	Very limited Shrink-swell Low strength Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	 1.00 1.00 0.15	Very limited Slope	    1.00
29: Brifox-----	55	Very limited Shrink-swell Slope Low strength Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	 1.00 1.00 0.41	Very limited Slope Too clayey	 1.00 1.00
Niter-----	25	Very limited Shrink-swell Slope Low strength Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	 1.00 1.00 0.15	Very limited Slope	    1.00
30: Broadhead-----	30	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 0.63 0.50	Somewhat limited Slope Cutbanks cave	 0.63 0.10	Somewhat limited Slope	    0.63
Hades-----	25	Very limited Low strength Slope Frost action	 1.00 0.63 0.50	Very limited Cutbanks cave Slope	 1.00 0.63	Somewhat limited Slope	    0.63
Yago-----	25	Very limited Shrink-swell Content of large stones Low strength Slope Frost action	 1.00 1.00  1.00 0.63 0.50	Very limited Content of large stones Slope Cutbanks cave	 1.00  0.63 0.10	Very limited Content of large stones Slope	 1.00   0.63
31: Broadhead-----	40	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	    1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
31: Yago-----	35	Very limited Shrink-swell Slope Content of large stones Low strength Frost action	 1.00 1.00 1.00  1.00 0.50	Very limited Slope Content of large stones Cutbanks cave	 1.00 1.00  0.10	Very limited Content of large stones Slope	 1.00  1.00
32: Camelback-----	55	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Gravel content	 1.00 1.00
Lonigan-----	25	Very limited Slope Frost action	 1.00 0.50	Very limited Slope Cutbanks cave Depth to soft bedrock	 1.00 1.00 0.90	Very limited Slope Gravel content Depth to bedrock Droughty	 1.00 0.97 0.90 0.42
33: Camelback-----	40	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Gravel content	 1.00 1.00
Hades-----	20	Very limited Slope Low strength Frost action	 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope	 1.00
Valmar-----	20	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	 1.00 1.00  0.90  0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00  1.00 1.00 0.10	Very limited Slope Content of large stones Depth to bedrock Droughty	 1.00 1.00  0.90 0.63
34: Cedarhill-----	90	Very limited Slope Frost action	 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope Gravel content Droughty	 1.00 1.00 0.61
35: Cedarhill-----	40	Very limited Slope Frost action	 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Gravel content Droughty	 1.00 1.00 0.61
Hades-----	25	Very limited Slope Low strength Frost action	 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope	 1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
35: Ricrest-----	20	Very limited Slope Low strength Shrink-swell Frost action	1.00 0.78 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 0.61
36: Cedarhill-----	35	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content Droughty	1.00 1.00 0.61
Hondoho-----	30	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
Ridgecrest-----	20	Very limited Slope Content of large stones Depth to hard bedrock Frost action	1.00 1.00 0.71 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.10	Very limited Slope Content of large stones Carbonate content Droughty Depth to bedrock	1.00 1.00 1.00 0.98 0.71
37: Chesbrook-----	60	Very limited Frost action Low strength Depth to saturated zone Shrink-swell Flooding	1.00 1.00 0.99 0.50 0.40	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Very limited Carbonate content Depth to saturated zone	1.00 0.99
Bear Lake-----	20	Very limited Depth to saturated zone Frost action Flooding Low strength	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Very limited Depth to saturated zone Flooding	1.00 0.60
38: Cloudless-----	50	Very limited Low strength Shrink-swell Frost action Slope	1.00 0.50 0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Slope	0.01
Hades-----	40	Very limited Low strength Frost action Slope	1.00 0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Slope	0.01
39: Cloudless-----	35	Very limited Slope Low strength Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
39: Hades-----	30	Very limited Slope Low strength Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope	1.00
Howcan-----	20	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Gravel content Content of large stones	1.00 0.91 0.01
40: Copenhagen-----	35	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Droughty Slope Gravel content Content of large stones	1.00 1.00 1.00 0.98 0.61
Lonigan-----	30	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope Depth to soft bedrock	1.00 1.00 0.20	Very limited Slope Gravel content Droughty Depth to bedrock	1.00 0.97 0.42 0.20
Manila-----	20	Very limited Low strength Shrink-swell Slope Frost action	1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope	1.00
41: Delish-----	40	Very limited Frost action Low strength Flooding Depth to saturated zone	1.00 1.00 0.40 0.19	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Depth to saturated zone Salinity	0.19 0.13
Cachecan-----	25	Very limited Frost action Low strength Flooding	1.00 1.00 0.40	Somewhat limited Depth to saturated zone Cutbanks cave	0.95 0.10	Not limited	
Stinkcreek-----	15	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Sodium content Depth to saturated zone	1.00 1.00
42: Downata-----	80	Very limited Depth to saturated zone Frost action Flooding Low strength Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding Cutbanks cave	1.00 1.00 0.80 0.10	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
43: Dranburn-----	45	Very limited Slope Low strength Shrink-swell Frost action	 1.00 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope	 1.00
Robin-----	35	Very limited Slope Frost action Low strength Shrink-swell	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
44: Enochville-----	75	Very limited Frost action Flooding Low strength Depth to saturated zone Shrink-swell	 1.00 1.00 1.00 0.75 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	 1.00 1.00 0.80	Very limited Flooding Depth to saturated zone	 1.00 0.75
45: Foxol-----	45	Very limited Depth to hard bedrock Content of large stones Slope Frost action	 1.00 1.00 1.00 1.00 0.50	Very limited Depth to hard bedrock Content of large stones Slope Cutbanks cave	 1.00 1.00 1.00 1.00 0.10	Very limited Depth to bedrock Slope Content of large stones Droughty	 1.00 1.00 1.00 1.00
Vitale-----	30	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	 1.00 1.00 0.64 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00 1.00 1.00 1.00 0.10	Very limited Slope Droughty Content of large stones Depth to bedrock	 1.00 1.00 1.00 0.65
46: Hades-----	35	Very limited Slope Low strength Frost action	 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope	 1.00
Camelback-----	20	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Gravel content	 1.00 1.00
Hondoho-----	20	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Content of large stones Gravel content	 1.00 0.38 0.12

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
47: Hades-----	25	Very limited Slope Low strength Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope	1.00
Lanoak-----	25	Very limited Slope Frost action Low strength	1.00 1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Camelback-----	25	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 1.00
48: Haploxerolls-----	45	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Droughty	1.00 0.99
Xerorthents-----	30	Very limited Slope Depth to soft bedrock Frost action Content of large stones	1.00 1.00 0.50 0.04	Very limited Depth to soft bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 0.10 0.04	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
49: Hendricks-----	90	Very limited Frost action Low strength Shrink-swell Slope	1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
50: Holmes-----	90	Somewhat limited Frost action Flooding	0.50 0.40	Very limited Cutbanks cave Dense layer	1.00 0.50	Somewhat limited Droughty Gravel content	0.35 0.01
51: Hondee-----	85	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Gravel content	0.97
52: Hondee-----	75	Somewhat limited Frost action Slope	0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Gravel content Slope	0.97 0.01
53: Hondoho-----	50	Somewhat limited Shrink-swell Frost action Slope	0.50 0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Content of large stones Gravel content Slope	0.38 0.12 0.01
Hades-----	30	Very limited Low strength Frost action Slope	1.00 0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Slope	0.01

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
54: Hondoho-----	50	Somewhat limited Slope Shrink-swell Frost action	 0.63 0.50 0.50	Very limited Cutbanks cave Slope	 1.00 0.63	Somewhat limited Slope Content of large stones Gravel content	 0.63 0.38 0.12
Ricrest-----	40	Somewhat limited Low strength Shrink-swell Frost action Slope	 0.78 0.50 0.50 0.01	Very limited Cutbanks cave Slope	 1.00 0.01	Somewhat limited Gravel content Slope	 0.61 0.01
55: Hondoho-----	35	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope Content of large stones Gravel content	 1.00 0.38 0.12
Sprollow-----	30	Very limited Slope Frost action Content of large stones Depth to hard bedrock	 1.00 0.50 0.26 0.01	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00  1.00 0.26 0.10	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	 1.00 1.00 0.59 0.08 0.01
Hades-----	20	Very limited Slope Low strength Frost action	 1.00 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope	 1.00
56: Hondoho-----	45	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Content of large stones Gravel content	 1.00 0.38 0.12
Vitale-----	30	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	 1.00 1.00 0.64 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00  1.00 1.00 0.10	Very limited Slope Droughty Content of large stones Depth to bedrock	 1.00 1.00 1.00 0.65
57: Huffman-----	80	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 0.50	Somewhat limited Cutbanks cave	 0.10	Not limited	
58: Huffman-----	80	Very limited Frost action Low strength Shrink-swell Slope	 1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	 0.10 0.01	Somewhat limited Slope	 0.01

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
59: Huffman-----	45	Very limited Frost action Low strength Shrink-swell Slope	1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
Dirtyhead-----	30	Somewhat limited Frost action Slope	0.50 0.01	Very limited Cutbanks cave Depth to soft bedrock Slope	1.00 0.01 0.01	Very limited Gravel content Droughty Depth to bedrock Slope	1.00 0.66 0.01 0.01
60: Huffman-----	35	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Harroun-----	30	Somewhat limited Depth to thin cemented pan Frost action Slope	1.00 0.50 0.01	Very limited Depth to thin cemented pan Cutbanks cave Slope	1.00 1.00 0.01	Very limited Depth to cemented pan Droughty Gravel content Content of large stones Slope	1.00 1.00 0.42 0.32 0.01
Lanoak-----	25	Very limited Frost action Low strength	1.00 1.00	Somewhat limited Cutbanks cave	0.10	Not limited	
61: Huffman-----	45	Very limited Frost action Low strength Shrink-swell Slope	1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
Wursten-----	35	Somewhat limited Frost action Slope	0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Slope	0.01
62: Iphil-----	60	Very limited Frost action Slope	1.00 0.96	Somewhat limited Slope Cutbanks cave	0.96 0.10	Somewhat limited Slope	0.96
Lonigan-----	20	Somewhat limited Slope Frost action	0.96 0.50	Very limited Cutbanks cave Slope Depth to soft bedrock	1.00 0.96 0.90	Somewhat limited Gravel content Slope Depth to bedrock Droughty	0.97 0.96 0.90 0.42

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
63: Ireland-----	50	Very limited Slope Depth to hard bedrock Content of large stones Frost action	 1.00 0.95  0.52 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00  1.00 0.52 0.10	Very limited Slope Droughty Depth to bedrock Content of large stones Gravel content	 1.00 0.99 0.95 0.95 0.72
Polumar-----	25	Very limited Slope Content of large stones Frost action	 1.00 0.88  0.50	Very limited Slope Content of large stones Depth to hard bedrock Cutbanks cave	 1.00 0.88  0.77 0.10	Very limited Slope Gravel content Content of large stones Droughty	 1.00 0.61 0.01 0.01
64: Kabear-----	50	Somewhat limited Frost action Slope	 0.50 0.01	Somewhat limited Cutbanks cave Slope	 0.10 0.01	Somewhat limited Slope	 0.01
Staberg-----	25	Somewhat limited Frost action Slope	 0.50 0.01	Very limited Cutbanks cave Depth to soft bedrock Slope	 1.00 0.01 0.01	Somewhat limited Depth to bedrock Slope	 0.01 0.01
Copenhagen-----	15	Very limited Depth to hard bedrock Frost action Slope	 1.00 0.50 0.01	Very limited Depth to hard bedrock Cutbanks cave Slope	 1.00 0.10 0.01	Very limited Depth to bedrock Droughty Gravel content Content of large stones Slope	 1.00 1.00 0.98 0.61 0.01
65: Kabear-----	50	Very limited Slope Frost action	 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
Staberg-----	25	Very limited Slope Frost action	 1.00 0.50	Very limited Cutbanks cave Slope Depth to soft bedrock	 1.00 1.00 0.01	Very limited Slope Depth to bedrock	 1.00 0.01
Copenhagen-----	15	Very limited Depth to hard bedrock Slope Frost action	 1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	 1.00 1.00 0.10	Very limited Depth to bedrock Droughty Gravel content Content of large stones	 1.00 1.00 1.00 0.98 0.61
66: Kearns-----	80	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 0.50	Somewhat limited Cutbanks cave	 0.10	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
67: Kearnsar-----	60	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Depth to saturated zone Cutbanks cave	0.24 0.10	Not limited	
Battle Creek-----	25	Very limited Frost action Low strength Shrink-swell	1.00 1.00 1.00	Somewhat limited Too clayey Depth to saturated zone Cutbanks cave	0.50 0.24 0.10	Not limited	
68: Kidman-----	90	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
69: Kidman-----	85	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
70: Kidman-----	85	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
71: Kidman, wet-----	85	Very limited Frost action	1.00	Somewhat limited Depth to saturated zone Cutbanks cave	0.24 0.10	Not limited	
72: Kidman-----	45	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Sterling-----	30	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Gravel content Droughty	0.68 0.04
73: Lando-----	75	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Depth to saturated zone Cutbanks cave	0.95 0.10	Not limited	
74: Lanoak-----	75	Very limited Frost action Low strength	1.00 1.00	Somewhat limited Cutbanks cave	0.10	Not limited	
75: Lanoak-----	75	Very limited Frost action Low strength Slope	1.00 1.00 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
76: Lanoak-----	45	Very limited Frost action Slope Low strength	1.00 1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Broadhead-----	40	Very limited Low strength Shrink-swell Slope Frost action	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
77: Lanoak-----	35	Very limited Slope Frost action Low strength	1.00 1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Broadhead-----	30	Very limited Slope Low strength Shrink-swell Frost action	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Hades-----	15	Very limited Slope Low strength Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope	1.00
78: Lanoak-----	40	Very limited Frost action Low strength Slope	1.00 1.00 0.84	Somewhat limited Slope Cutbanks cave	0.84 0.10	Somewhat limited Slope	0.84
Hades-----	35	Very limited Low strength Slope Frost action	1.00 0.84 0.50	Very limited Cutbanks cave Slope	1.00 0.84	Somewhat limited Slope	0.84
79: Lanoak-----	60	Very limited Frost action Slope Low strength	1.00 1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Thatcher-----	25	Very limited Frost action Slope Low strength	1.00 1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
80: Layton-----	85	Not limited		Very limited Cutbanks cave Depth to saturated zone	1.00 0.47	Somewhat limited Droughty	0.21

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
81: Layton-----	80	Not limited		Very limited Cutbanks cave Depth to saturated zone	1.00 0.47	Somewhat limited Droughty	0.21
82: Lizdale-----	80	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Content of large stones Carbonate content Droughty	1.00 1.00 1.00 0.01
83: Lizdale-----	55	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Content of large stones Slope Carbonate content Droughty	1.00 1.00 1.00 0.01
Searla-----	35	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Gravel content	1.00 0.54
84: Logan-----	90	Very limited Depth to saturated zone Frost action Low strength Shrink-swell Flooding	1.00 1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Very limited Depth to saturated zone	1.00
85: Lonigan-----	40	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope Depth to soft bedrock	1.00 1.00 0.20	Very limited Slope Gravel content Droughty Depth to bedrock	1.00 0.97 0.42 0.20
Lizdale-----	40	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Content of large stones Slope Carbonate content Droughty	1.00 1.00 1.00 0.01
86: Lonigan-----	45	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to soft bedrock	1.00 1.00 0.90	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42
Ricrest-----	30	Very limited Slope Low strength Shrink-swell Frost action	1.00 0.78 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 0.61



# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
87: Manila-----	85	Very limited Low strength Shrink-swell Frost action	 1.00 1.00 0.50	Very limited Cutbanks cave	 1.00	Not limited	
88: Manila-----	80	Very limited Low strength Shrink-swell Frost action Slope	 1.00 1.00 0.50 0.01	Very limited Cutbanks cave Slope	 1.00 0.01	Somewhat limited Slope	0.01
89: Manila-----	85	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope	1.00
90: Manila-----	50	Very limited Low strength Shrink-swell Frost action Slope	 1.00 1.00 0.50 0.37	Very limited Cutbanks cave Slope	 1.00 0.37	Somewhat limited Slope	0.37
Bancroft-----	30	Very limited Frost action Low strength Slope	 1.00 1.00 0.37	Somewhat limited Slope Cutbanks cave	 0.37 0.10	Somewhat limited Slope	0.37
91: Manila-----	50	Very limited Low strength Shrink-swell Frost action Slope	 1.00 1.00 0.50 0.01	Very limited Cutbanks cave Slope	 1.00 0.01	Somewhat limited Slope	0.01
Broadhead-----	25	Very limited Low strength Shrink-swell Frost action Slope	 1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	 0.10 0.01	Somewhat limited Slope	0.01
92: Manila-----	40	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope	1.00
Broadhead-----	35	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Manila-----	50	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope	 1.00
Lonigan-----	30	Very limited Slope Frost action	 1.00 0.50	Very limited Cutbanks cave Slope Depth to soft bedrock	 1.00 1.00 0.20	Very limited Slope Gravel content Droughty Depth to bedrock	 1.00 0.97 0.42 0.20
94: Manila-----	55	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 0.84 0.50	Very limited Cutbanks cave Slope	 1.00 0.84	Somewhat limited Slope	 0.84
Yeates Hollow-----	30	Very limited Shrink-swell Low strength Slope Frost action Content of large stones	 1.00 1.00 0.84 0.50 0.19	Very limited Cutbanks cave Slope Content of large stones Too clayey	 1.00 0.84 0.19 0.03	Somewhat limited Slope Content of large stones	 0.84 0.38
95: Maplecreek-----	95	Very limited Frost action Flooding	 1.00 0.40	Very limited Cutbanks cave Depth to saturated zone	 1.00 0.99	Not limited	
96: Maplecreek-----	45	Very limited Frost action Flooding	 1.00 0.40	Very limited Cutbanks cave Depth to saturated zone	 1.00 0.99	Not limited	
Layton-----	35	Not limited		Very limited Cutbanks cave Depth to saturated zone	 1.00 0.47	Somewhat limited Droughty	 0.21
97: Merkley-----	45	Very limited Frost action	 1.00	Very limited Cutbanks cave Dense layer Depth to saturated zone	 1.00 0.50 0.15	Not limited	
Lago-----	20	Very limited Frost action Low strength Shrink-swell Flooding Depth to saturated zone	 1.00 1.00 0.50 0.40 0.03	Very limited Depth to saturated zone Cutbanks cave	 1.00 0.10	Somewhat limited Depth to saturated zone	 0.03

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
97: Bear Lake-----	15	Very limited Depth to saturated zone Frost action Flooding Low strength	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Very limited Depth to saturated zone Flooding	1.00 0.60
98: Moonlight-----	40	Very limited Slope Frost action	1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Camelback-----	35	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 1.00
99: Niter-----	60	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Too clayey	1.00 0.28	Not limited	
Brifox-----	20	Very limited Shrink-swell Low strength Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Too clayey	1.00 0.41	Very limited Too clayey	1.00
100: Northwater-----	35	Very limited Slope Frost action Content of large stones	1.00 0.50 0.31	Very limited Slope Cutbanks cave Depth to hard bedrock Content of large stones	1.00 1.00 0.77 0.31	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
Foxol-----	25	Very limited Depth to hard bedrock Content of large stones Slope Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Depth to hard bedrock Content of large stones Slope Cutbanks cave	1.00 1.00 1.00 1.00 0.10	Very limited Depth to bedrock Slope Content of large stones Droughty	1.00 1.00 1.00 1.00
Vitale-----	20	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	1.00 1.00 0.64 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.10	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
101: Northwater-----	65	Very limited Slope Frost action Content of large stones	1.00 0.50 0.31	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.31	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
Povey-----	25	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Gravel content	1.00 0.01
102: Northwater-----	65	Very limited Slope Frost action Content of large stones	1.00 0.50 0.31	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.31	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
Povey-----	15	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 0.01
103: Nyman-----	50	Very limited Slope Frost action Content of large stones Depth to hard bedrock	1.00 0.50 0.13 0.05	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.13 0.10	Very limited Slope Depth to bedrock	1.00 0.05
Lonigan-----	20	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to soft bedrock	1.00 1.00 0.90	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42
Copenhagen-----	15	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.98 0.61
104: Oxford-----	45	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.99 0.10	Very limited Too clayey	1.00
Banida-----	35	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
105: Oxford-----	45	Very limited Low strength Shrink-swell Frost action Slope	 1.00 1.00 0.50 0.01	Somewhat limited Too clayey Cutbanks cave Slope	 0.99 0.10 0.01	Very limited Too clayey Slope	 1.00 0.01
Banida-----	35	Very limited Low strength Shrink-swell Frost action Slope	 1.00 1.00 0.50 0.01	Somewhat limited Too clayey Cutbanks cave Slope	 0.28 0.10 0.01	Somewhat limited Slope	 0.01
106: Oxford-----	50	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	 1.00 0.99 0.10	Very limited Slope Too clayey	 1.00 1.00
Banida-----	35	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	 1.00 0.28 0.10	Very limited Slope	 1.00
107: Oxford-----	65	Very limited Slope Low strength Shrink-swell Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	 1.00 0.99 0.10	Very limited Slope Too clayey	 1.00 1.00
Gullied land-----	15	Not rated		Not rated		Not rated	
108: Parkay-----	45	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave Depth to hard bedrock	 1.00 1.00 0.68	Very limited Slope	 1.00
Povey-----	30	Very limited Slope Frost action	 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Gravel content	 1.00 0.01
109: Parleys-----	85	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 0.50	Somewhat limited Cutbanks cave	 0.10	Not limited	
110: Parleys-----	85	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 0.50	Somewhat limited Cutbanks cave	 0.10	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
111: Parleys, wet-----	90	Very limited Frost action Low strength Shrink-swell Flooding	1.00 1.00 0.50 0.40	Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10	Not limited	
112: Pavohroo-----	30	Very limited Slope Low strength Frost action	1.00 0.78 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Sedgway-----	30	Very limited Slope Shrink-swell Frost action Content of large stones	1.00 0.50 0.50 0.38	Very limited Slope Content of large stones Cutbanks cave	1.00 0.38 0.10	Very limited Slope	1.00
Toponce-----	20	Very limited Slope Low strength Shrink-swell Frost action	1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	1.00 0.95 0.10	Very limited Slope	1.00
113: Picabo-----	45	Very limited Frost action Flooding Low strength	1.00 0.40 0.22	Somewhat limited Depth to saturated zone Cutbanks cave	0.95 0.10	Very limited Sodium content Carbonate content	1.00 1.00
Thatcherflats-----	30	Very limited Frost action Low strength Shrink-swell Flooding	1.00 1.00 1.00 0.40	Somewhat limited Depth to saturated zone Cutbanks cave	0.82 0.10	Very limited Sodium content	1.00
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Very limited Low strength Frost action Slope	1.00 0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Slope	0.01
116: Pollynot-----	75	Very limited Low strength Frost action	1.00 0.50	Very limited Cutbanks cave	1.00	Not limited	
117: Pollynot-----	75	Very limited Low strength Frost action	1.00 0.50	Very limited Cutbanks cave	1.00	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
118: Pollynnot-----	75	Very limited Low strength Slope Frost action	1.00 0.63 0.50	Very limited Cutbanks cave Slope	1.00 0.63	Somewhat limited Slope	0.63
119: Polumar-----	45	Very limited Slope Content of large stones Frost action	1.00 0.88 0.50	Very limited Slope Content of large stones Depth to hard bedrock Cutbanks cave	1.00 0.88 0.77 0.10	Very limited Slope Gravel content Content of large stones Droughty	1.00 0.61 0.01 0.01
Ireland-----	30	Very limited Slope Depth to hard bedrock Content of large stones Frost action	1.00 0.95 0.52 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 0.52 0.10	Very limited Slope Droughty Depth to bedrock Content of large stones Gravel content	1.00 0.99 0.95 0.95 0.72
120: Polumar-----	30	Very limited Slope Content of large stones Frost action	1.00 0.88 0.50	Very limited Slope Content of large stones Depth to hard bedrock Cutbanks cave	1.00 0.88 0.77 0.10	Very limited Slope Gravel content Content of large stones Droughty	1.00 0.61 0.01 0.01
Sprollow-----	30	Very limited Slope Frost action Content of large stones Depth to hard bedrock	1.00 0.50 0.26 0.01 0.01	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 0.26 0.10	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01
Ireland-----	20	Very limited Slope Depth to hard bedrock Content of large stones Frost action	1.00 0.95 0.52 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 0.52 0.10	Very limited Slope Droughty Depth to bedrock Content of large stones Gravel content	1.00 0.99 0.95 0.95 0.72
121: Povey-----	35	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Gravel content	1.00 0.01
Hades-----	30	Very limited Slope Low strength Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
121: Hondoho-----	15	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
122: Povey-----	45	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content	1.00 0.01
Parkay-----	30	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave Depth to hard bedrock	1.00 1.00 0.68	Very limited Slope	1.00
123: Preston-----	90	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.61
124: Preston-----	90	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.61
125: Preston-----	85	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Droughty	1.00 0.61
126: Preston-----	55	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Droughty	1.00 0.61
Xerorthents-----	20	Very limited Slope Depth to soft bedrock Frost action Content of large stones	1.00 1.00 0.50 0.04	Very limited Depth to soft bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 0.10 0.04	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
127: Ricrest-----	90	Somewhat limited Low strength Shrink-swell Frost action Slope	0.78 0.50 0.50 0.01	Very limited Cutbanks cave Slope	1.00 0.01	Somewhat limited Gravel content Slope	0.61 0.01
128: Sanyon-----	30	Very limited Slope Depth to soft bedrock Frost action	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Slope Droughty Gravel content	1.00 1.00 1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
128: Staberg-----	30	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to soft bedrock	1.00 1.00 0.01	Very limited Slope Depth to bedrock	1.00 0.01
Kabear-----	20	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
129: Smidale-----	85	Very limited Slope Frost action Content of large stones	1.00 0.50 0.05	Very limited Slope Cutbanks cave Content of large stones	1.00 0.10 0.05	Very limited Slope	1.00
130: Smidale-----	45	Very limited Slope Frost action Content of large stones	1.00 0.50 0.05	Very limited Slope Cutbanks cave Content of large stones	1.00 0.10 0.05	Very limited Slope	1.00
Staberg-----	40	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to soft bedrock	1.00 1.00 0.01	Very limited Slope Depth to bedrock	1.00 0.01
131: Sprollow-----	45	Very limited Slope Frost action Content of large stones Depth to hard bedrock	1.00 0.50 0.26 0.01 0.01	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.26 0.10	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01
Hondoho-----	35	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Content of large stones Gravel content	1.00 0.38 0.12
132: Sprollow-----	40	Very limited Slope Frost action Content of large stones Depth to hard bedrock	1.00 0.50 0.26 0.01	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.26 0.10	Very limited Slope Carbonate content Gravel content Content of large stones Depth to bedrock	1.00 1.00 0.59 0.08 0.01

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
132: Hymas-----	35	Very limited Depth to hard bedrock Slope Frost action Content of large stones	1.00  1.00 0.50 0.01	Very limited Depth to hard bedrock Slope Cutbanks cave Content of large stones	1.00  1.00 0.10 0.01	Very limited Depth to bedrock Slope Droughty Gravel content Carbonate content	1.00 1.00 1.00 1.00 1.00
133: Sterling-----	85	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Gravel content Droughty	0.68 0.04
134: Sterling-----	85	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Gravel content Droughty	0.68 0.04
135: Sterling-----	90	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Gravel content Droughty	1.00 0.68 0.04
136: Sterling-----	85	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Gravel content Droughty	1.00 0.68 0.04
137: Sterling-----	50	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Gravel content Droughty	0.68 0.04
Parleys-----	30	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
138: Thatcher-----	45	Very limited Frost action Low strength Slope	1.00 1.00 0.84	Somewhat limited Slope Cutbanks cave	0.84 0.10	Somewhat limited Slope	0.84
Bearhollow-----	35	Somewhat limited Slope Frost action	0.84 0.50	Very limited Cutbanks cave Slope	1.00 0.84	Somewhat limited Gravel content Slope	0.97 0.84
139: Toponce-----	50	Very limited Low strength Shrink-swell Slope Frost action	1.00 1.00 1.00 0.50	Very limited Slope Too clayey Cutbanks cave	1.00 0.95 0.10	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
139: Broadhead-----	30	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	 1.00 0.10	Very limited Slope	 1.00
140: Trenton-----	50	Very limited Low strength Shrink-swell Frost action	 1.00 0.50 0.50	Somewhat limited Depth to saturated zone Cutbanks cave Too clayey	 0.95  0.10 0.03	Very limited Sodium content	 1.00
Battle Creek-----	40	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 1.00	Somewhat limited Too clayey Depth to saturated zone Cutbanks cave	 0.50 0.24 0.10	Not limited	
141: Trenton, cool-----	50	Very limited Low strength Shrink-swell Frost action	 1.00 0.50 0.50	Somewhat limited Depth to saturated zone Cutbanks cave Too clayey	 0.95  0.10 0.03	Very limited Sodium content	 1.00
Battle Creek, cool--	40	Very limited Frost action Low strength Shrink-swell	 1.00 1.00 1.00	Somewhat limited Too clayey Depth to saturated zone Cutbanks cave	 0.50 0.24 0.10	Not limited	
142: Trenton-----	45	Very limited Low strength Shrink-swell Frost action	 1.00 0.50 0.50	Somewhat limited Depth to saturated zone Cutbanks cave Too clayey	 0.95  0.10 0.03	Very limited Sodium content	 1.00
Parleys-----	35	Very limited Frost action Low strength Shrink-swell Flooding	 1.00 1.00 0.50 0.40	Somewhat limited Depth to saturated zone Cutbanks cave	 0.15  0.10	Not limited	
143: Valmar-----	40	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	 1.00 1.00  0.90 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00  1.00 1.00 0.10	Very limited Slope Content of large stones Depth to bedrock Droughty	 1.00 1.00  0.90 0.63
Camelback-----	25	Very limited Slope Shrink-swell Frost action	 1.00 0.50 0.50	Very limited Slope Cutbanks cave	 1.00 1.00	Very limited Slope Gravel content	 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
143: Hades-----	20	Very limited Slope Low strength Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope	1.00
144: Vitale-----	40	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	1.00 1.00 0.64 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 1.00 0.10	Very limited Slope Droughty Content of large stones Depth to bedrock	1.00 1.00 1.00 0.65
Bergquist-----	25	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Depth to hard bedrock	1.00 1.00 0.13	Very limited Slope Gravel content Droughty Content of large stones	1.00 1.00 0.80 0.01
Rock outcrop-----	15	Not rated		Not rated		Not rated	
145: Vitale-----	35	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	1.00 1.00 0.99 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 1.00 0.10	Very limited Droughty Content of large stones Slope Depth to bedrock	1.00 1.00 1.00 0.99
Yeates Hollow-----	25	Very limited Shrink-swell Slope Low strength Frost action Content of large stones	1.00 1.00 1.00 0.50 0.19	Very limited Cutbanks cave Slope Content of large stones Too clayey	1.00 1.00 0.19 0.03	Very limited Slope Content of large stones	1.00 0.38
Northwater-----	15	Very limited Slope Frost action Content of large stones	1.00 0.50 0.31	Very limited Slope Cutbanks cave Depth to hard bedrock Content of large stones	1.00 1.00 0.77 0.31	Very limited Slope Droughty Gravel content	1.00 0.30 0.26
146: Welby-----	90	Somewhat limited Low strength Frost action	0.78 0.50	Somewhat limited Cutbanks cave	0.10	Very limited Sodium content	1.00
147: Welby-----	90	Somewhat limited Low strength Frost action	0.78 0.50	Somewhat limited Cutbanks cave	0.10	Very limited Sodium content	1.00

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
148: Welby, wet-----	85	Very limited Frost action Low strength	1.00 0.78	Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10	Not limited	
149: Collinston-----	40	Very limited Frost action Low strength Shrink-swell Slope	1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
Wheelon-----	40	Very limited Frost action Low strength Shrink-swell Slope	1.00 1.00 0.50 0.01	Somewhat limited Cutbanks cave Slope	0.10 0.01	Somewhat limited Slope	0.01
150: Wheelon-----	40	Very limited Frost action Low strength Slope Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Collinston-----	35	Very limited Frost action Low strength Slope Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
151: Wheelon-----	45	Very limited Slope Frost action Low strength Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Collinston-----	30	Very limited Slope Frost action Low strength Shrink-swell	1.00 1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
152: Windernot-----	40	Somewhat limited Flooding	0.40	Very limited Cutbanks cave Dense layer Depth to saturated zone	1.00 0.50 0.08	Somewhat limited Droughty Gravel content	0.88 0.68
Lewnot-----	20	Somewhat limited Frost action Flooding	0.50 0.40	Very limited Cutbanks cave Depth to saturated zone Dense layer	1.00 0.99 0.50	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
152: Stinkcreek-----	15	Very limited Depth to saturated zone Frost action Flooding	1.00  1.00 0.40	Very limited Depth to saturated zone Cutbanks cave	1.00  1.00	Very limited Sodium content Depth to saturated zone	1.00 1.00
153: Winn-----	90	Very limited Frost action Flooding	1.00 0.40	Somewhat limited Depth to saturated zone Cutbanks cave	0.95  0.10	Not limited	
154: Winwell-----	80	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
155: Winwell-----	45	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Collinston-----	35	Very limited Frost action Low strength Shrink-swell	1.00 1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
156: Wormcreek-----	50	Very limited Slope Frost action Content of large stones	1.00 0.50 0.13	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.13	Very limited Slope Gravel content Content of large stones	1.00 0.71 0.03
Copenhagen-----	30	Very limited Depth to hard bedrock Slope Frost action	1.00  1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00  1.00 0.10	Very limited Depth to bedrock Slope Droughty Gravel content	1.00 1.00 1.00 0.98
						Content of large stones	0.61
157: Wormcreek-----	45	Very limited Slope Frost action Content of large stones	1.00 0.50 0.13	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.13	Very limited Slope Gravel content Content of large stones	1.00 0.71 0.03
Lonigan-----	35	Very limited Slope Frost action	1.00  0.50	Very limited Slope Cutbanks cave Depth to soft bedrock	1.00 1.00 0.90	Very limited Slope Gravel content Depth to bedrock Droughty	1.00 0.97 0.90 0.42

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
158: Wursten-----	45	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope	1.00
Dirtyhead-----	35	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope Depth to soft bedrock	1.00 1.00 0.01	Very limited Slope Gravel content Droughty Depth to bedrock	1.00 1.00 0.66 0.01
159: Xerocrepts-----	30	Very limited Slope Frost action Low strength	1.00 0.50 0.22	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00
Wormcreek-----	25	Very limited Slope Frost action Content of large stones	1.00 0.50 0.13	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.13	Very limited Slope Gravel content Content of large stones	1.00 0.71 0.03
Xerorthents-----	20	Very limited Slope Depth to soft bedrock Frost action Content of large stones	1.00 1.00 1.00 0.50 0.04	Very limited Depth to soft bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 1.00 0.10 0.04	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
160: Xerorthents-----	75	Very limited Slope Depth to soft bedrock Frost action Content of large stones	1.00 1.00 1.00 0.50 0.04	Very limited Depth to soft bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 1.00 0.10 0.04	Very limited Depth to bedrock Slope Droughty Gravel content Content of large stones	1.00 1.00 1.00 0.21 0.03
161: Yeates Hollow-----	85	Very limited Shrink-swell Slope Low strength Frost action Content of large stones	1.00 1.00 1.00 0.50 0.19	Very limited Cutbanks cave Slope Content of large stones Too clayey	1.00 1.00 0.19 0.03	Very limited Slope Content of large stones	1.00 0.38
162: Yeates Hollow-----	40	Very limited Shrink-swell Slope Low strength Frost action Content of large stones	1.00 1.00 1.00 0.50 0.19	Very limited Cutbanks cave Slope Content of large stones Too clayey	1.00 1.00 0.19 0.03	Very limited Slope Content of large stones	1.00 0.38

# Soil Survey of Franklin County Area, Idaho

Table 11.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
162: Manila-----	25	Very limited Low strength Shrink-swell Slope Frost action	 1.00 1.00 1.00 0.50	Very limited Cutbanks cave Slope	 1.00 1.00	Very limited Slope	 1.00
Softback-----	15	Very limited Slope Frost action Content of large stones	 1.00 0.50 0.12	Very limited Cutbanks cave Slope Content of large stones	 1.00 1.00 0.12	Very limited Slope	 1.00
163: Yeates Hollow-----	45	Very limited Slope Shrink-swell Low strength Frost action Content of large stones	 1.00 1.00 1.00 0.50 0.19	Very limited Slope Cutbanks cave Content of large stones Too clayey	 1.00 1.00 0.19 0.03	Very limited Slope Content of large stones	 1.00 0.38
Vitale-----	35	Very limited Slope Content of large stones Depth to hard bedrock Shrink-swell Frost action	 1.00 1.00 0.79 0.50 0.50	Very limited Depth to hard bedrock Slope Content of large stones Cutbanks cave	 1.00 1.00 1.00 1.00 0.10	Very limited Slope Droughty Content of large stones Depth to bedrock	 1.00 1.00 1.00 0.80
164: Water-----	100	Not rated		Not rated		Not rated	



# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Slow water movement Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
2: Ant Flat-----	85	Very limited Slow water movement	1.00	Not limited	
3: Ant Flat-----	85	Very limited Slow water movement	1.00	Somewhat limited Slope	0.08
4: Ant Flat-----	90	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
5: Ant Flat-----	65	Very limited Slow water movement	1.00	Somewhat limited Slope	0.92
Oxford-----	25	Very limited Slow water movement Slope	1.00 0.04	Very limited Slope	1.00
6: Ant Flat-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Oxford-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
7: Arbone-----	80	Very limited Seepage, bottom layer	1.00	Very limited Seepage	1.00
8: Banida-----	85	Very limited Slow water movement	1.00	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
9: Banida-----	80	Very limited Slow water movement	1.00	Somewhat limited Slope	0.08
10: Battle Creek-----	85	Very limited Slow water movement Depth to saturated zone	1.00 0.65	Somewhat limited Depth to saturated zone	0.02
11: Battle Creek-----	85	Very limited Slow water movement Depth to saturated zone	1.00 0.65	Somewhat limited Slope Depth to saturated zone	0.08 0.02
12: Battle Creek-----	95	Very limited Slow water movement	1.00	Somewhat limited Slope	0.92
13: Bear Lake-----	40	Very limited Flooding Depth to saturated zone Seepage, bottom layer Ponding Slow water movement	1.00 1.00 1.00 1.00 0.72	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00 1.00
Chesbrook-----	30	Very limited Depth to saturated zone Slow water movement Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 0.53 0.40
Picabo-----	15	Very limited Depth to saturated zone Slow water movement Flooding	1.00 0.46 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 0.53 0.40
14: Bear Lake-----	50	Very limited Flooding Depth to saturated zone Seepage, bottom layer Slow water movement	1.00 1.00 1.00 0.72	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
14: Downata-----	35	Very limited Flooding Depth to saturated zone Slow water movement Ponding	 1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding Seepage	 1.00 1.00 1.00 0.53
15: Bear Lake-----	50	Very limited Flooding Depth to saturated zone Seepage, bottom layer Slow water movement	 1.00 1.00 1.00 0.72	Very limited Flooding Seepage Depth to saturated zone	 1.00 1.00 1.00
Downata-----	25	Very limited Flooding Depth to saturated zone Slow water movement Ponding	 1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding Seepage	 1.00 1.00 1.00 0.53
Thatcherflats-----	20	Very limited Slow water movement Depth to saturated zone Flooding	 1.00 1.00 0.40	Somewhat limited Depth to saturated zone Flooding	 0.99 0.40
16: Bear Lake-----	65	Very limited Flooding Depth to saturated zone Seepage, bottom layer Slow water movement	 1.00 1.00 1.00 0.72	Very limited Flooding Seepage Depth to saturated zone	 1.00 1.00 1.00
Lago-----	30	Very limited Depth to saturated zone Slow water movement Seepage, bottom layer Flooding	 1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	 1.00 1.00 0.40
17: Bearhollow-----	30	Very limited Slope Slow water movement	 1.00 0.46	Very limited Slope Seepage	 1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
17: Brifox-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Iphil-----	20	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
18: Bergquist-----	60	Very limited Slope Seepage, bottom layer Filtering capacity Depth to bedrock	1.00 1.00 1.00 0.59	Very limited Slope Seepage Depth to hard bedrock	1.00 1.00 0.13
Rubble land-----	15	Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope Seepage, bottom layer Filtering capacity Depth to bedrock	1.00 1.00 1.00 0.59	Very limited Slope Seepage Depth to hard bedrock	1.00 1.00 0.13
Softback-----	30	Very limited Slope Slow water movement Content of large stones	1.00 1.00 0.12	Very limited Slope Seepage Content of large stones	1.00 0.53 0.18
20: Bergquist-----	55	Very limited Slope Seepage, bottom layer Filtering capacity Depth to bedrock	1.00 1.00 1.00 0.59	Very limited Slope Seepage Depth to hard bedrock	1.00 1.00 0.13
Vitale-----	25	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
21: Bothwell-----	80	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
22: Bothwell-----	80	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
23: Bothwell-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
Hades-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Justesen-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
24: Bothwell-----	40	Very limited Slow water movement	1.00	Somewhat limited Slope Seepage	0.92 0.53
Thatcher-----	35	Somewhat limited Slow water movement	0.46	Somewhat limited Slope Seepage	0.92 0.53
25: Brifox-----	40	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
Huffman-----	35	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53
26: Brifox-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Huffman-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
27: Brifox-----	55	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
27: Niter-----	25	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
28: Brifox-----	65	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Niter-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
29: Brifox-----	55	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Niter-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
30: Broadhead-----	30	Very limited Slow water movement Slope	1.00 0.63	Very limited Slope	1.00
Hades-----	25	Very limited Slow water movement Slope	1.00 0.63	Very limited Slope	1.00
Yago-----	25	Very limited Slow water movement Content of large stones Slope	1.00 1.00 0.63	Very limited Content of large stones Slope	1.00 1.00
31: Broadhead-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Yago-----	35	Very limited Slow water movement Slope Content of large stones	1.00 1.00 1.00	Very limited Slope Content of large stones	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
32: Camelback-----	55	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Lonigan-----	25	Very limited Depth to bedrock Slope Seepage, bottom layer	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
33: Camelback-----	40	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Hades-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
Valmar-----	20	Very limited Depth to bedrock Slope Content of large stones Slow water movement	1.00 1.00 1.00 0.46	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
34: Cedarhill-----	90	Very limited Seepage, bottom layer Slope	1.00 1.00	Very limited Slope Seepage	1.00 1.00
35: Cedarhill-----	40	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00
Hades-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
Ricrest-----	20	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
36: Cedarhill-----	35	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
36: Hondoho-----	30	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Ridgecrest-----	20	Very limited Depth to bedrock Slope Content of large stones Slow water movement	1.00 1.00 1.00 0.46	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
37: Chesbrook-----	60	Very limited Depth to saturated zone Slow water movement Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 0.53 0.40
Bear Lake-----	20	Very limited Flooding Depth to saturated zone Seepage, bottom layer Slow water movement	1.00 1.00 1.00 0.72	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
38: Cloudless-----	50	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53
Hades-----	40	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
39: Cloudless-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
Hades-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Howcan-----	20	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53



# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
40: Copenhagen-----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
Lonigan-----	30	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
Manila-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
41: Delish-----	40	Very limited Depth to saturated zone Slow water movement Flooding	1.00 0.46 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 0.53 0.40
Cachecan-----	25	Very limited Depth to saturated zone Slow water movement Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40
Stinkcreek-----	15	Very limited Depth to saturated zone Filtering capacity Seepage, bottom layer Flooding	1.00 1.00 1.00 0.40	Very limited Seepage Depth to saturated zone Flooding	1.00 1.00 0.40
42: Downata-----	80	Very limited Flooding Depth to saturated zone Slow water movement Ponding	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding Seepage	1.00 1.00 1.00 0.53
43: Dranburn-----	45	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope Seepage	1.00 0.53
Robin-----	35	Very limited Slope Slow water movement	1.00 0.72	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
44: Enochville-----	75	Very limited Flooding Depth to saturated zone Seepage, bottom layer Slow water movement	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
45: Foxol-----	45	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
Vitale-----	30	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
46: Hades-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
Camelback-----	20	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Hondoho-----	20	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
47: Hades-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
Lanoak-----	25	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Camelback-----	25	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
48: Haploxerolls-----	45	Very limited Slope Filtering capacity Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00
Xerorthents-----	30	Very limited Depth to bedrock Slope Seepage, bottom layer Content of large stones	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 1.00
49: Hendricks-----	90	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53
50: Holmes-----	90	Very limited Filtering capacity Seepage, bottom layer Flooding	1.00 1.00 0.40	Very limited Seepage Flooding	1.00 0.40
51: Hondee-----	85	Very limited Seepage, bottom layer	1.00	Very limited Seepage Slope	1.00 0.08
52: Hondee-----	75	Very limited Seepage, bottom layer Slope	1.00 0.01	Very limited Seepage Slope	1.00 1.00
53: Hondoho-----	50	Somewhat limited Slow water movement Slope	0.46 0.01	Very limited Slope Seepage	1.00 0.53
Hades-----	30	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
54: Hondoho-----	50	Somewhat limited Slope Slow water movement	0.63 0.46	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
54: Ricrest-----	40	Somewhat limited Slow water movement Slope	0.46  0.01	Very limited Slope Seepage	1.00  0.53
55: Hondoho-----	35	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Sprollo-----	30	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 0.46 0.26	Very limited Depth to hard bedrock Slope Seepage	1.00  1.00 0.53
Hades-----	20	Very limited Slow water movement Slope	1.00  1.00	Very limited Slope	1.00
56: Hondoho-----	45	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Vitale-----	30	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00  1.00 1.00 0.53
57: Huffman-----	80	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.53
58: Huffman-----	80	Very limited Slow water movement Slope	1.00  0.01	Very limited Slope Seepage	1.00 0.53
59: Huffman-----	45	Very limited Slow water movement Slope	1.00  0.01	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
59: Dirtyhead-----	30	Very limited Depth to bedrock Slow water movement Slope	1.00 0.46 0.01	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 0.53
60: Huffman-----	35	Very limited Slow water movement	1.00	Somewhat limited Slope Seepage	0.92 0.53
Harroun-----	30	Very limited Depth to cemented pan Seepage, bottom layer Slope	1.00 1.00 0.01	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 1.00
Lanoak-----	25	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage Slope	0.53 0.32
61: Huffman-----	45	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53
Wursten-----	35	Very limited Seepage, bottom layer Slow water movement Slope	1.00 0.46 0.01	Very limited Slope Seepage	1.00 1.00
62: Iphil-----	60	Somewhat limited Slope Slow water movement	0.96 0.46	Very limited Slope Seepage	1.00 0.53
Lonigan-----	20	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00 0.96	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
63: Ireland-----	50	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.52	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 0.88 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
63: Polumar-----	25	Very limited Slope Depth to bedrock Content of large stones Slow water movement	1.00 0.91 0.88 0.46	Very limited Slope Depth to hard bedrock Seepage Content of large stones	1.00 0.77 0.53 0.39
64: Kabear-----	50	Very limited Seepage, bottom layer Slow water movement Slope	1.00 0.46 0.01	Very limited Seepage Slope	1.00 1.00
Staberg-----	25	Very limited Depth to bedrock Seepage, bottom layer Slow water movement Slope	1.00 1.00 0.46 0.01	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 1.00
Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
65: Kabear-----	50	Very limited Seepage, bottom layer Slope Slow water movement	1.00 1.00 0.46	Very limited Slope Seepage	1.00 1.00
Staberg-----	25	Very limited Depth to bedrock Seepage, bottom layer Slope Slow water movement	1.00 1.00 1.00 0.46	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
66: Kearns-----	80	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage	0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
67: Kearnsar-----	60	Very limited Slow water movement Depth to saturated zone	1.00 0.65	Somewhat limited Seepage Depth to saturated zone	0.28 0.02
Battle Creek-----	25	Very limited Slow water movement Depth to saturated zone	1.00 0.65	Somewhat limited Depth to saturated zone	0.02
68: Kidman-----	90	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage	0.53
69: Kidman-----	85	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage Slope	0.53 0.08
70: Kidman-----	85	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
71: Kidman, wet-----	85	Somewhat limited Depth to saturated zone Slow water movement	0.65 0.46	Somewhat limited Seepage Depth to saturated zone	0.53 0.02
72: Kidman-----	45	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage	0.53
Sterling-----	30	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage	0.53
73: Lando-----	75	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
74: Lanoak-----	75	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage	0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
75: Lanoak-----	75	Somewhat limited Slow water movement Slope	0.46 0.01	Very limited Slope Seepage	1.00 0.53
76: Lanoak-----	45	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Broadhead-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
77: Lanoak-----	35	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Broadhead-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Hades-----	15	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
78: Lanoak-----	40	Somewhat limited Slope Slow water movement	0.84 0.46	Very limited Slope Seepage	1.00 0.53
Hades-----	35	Very limited Slow water movement Slope	1.00 0.84	Very limited Slope	1.00
79: Lanoak-----	60	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Thatcher-----	25	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53



# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
80: Layton-----	85	Very limited Filtering capacity Seepage, bottom layer Depth to saturated zone	1.00  1.00  0.94	Very limited Seepage Depth to saturated zone	1.00  0.40
81: Layton-----	80	Very limited Filtering capacity Seepage, bottom layer Depth to saturated zone	1.00  1.00  0.94	Very limited Seepage Depth to saturated zone	1.00  0.40
82: Lizdale-----	80	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage Content of large stones	1.00 1.00 0.10
83: Lizdale-----	55	Very limited Seepage, bottom layer Slope	1.00  1.00	Very limited Slope Seepage Content of large stones	1.00 1.00 0.10
Searla-----	35	Very limited Slow water movement Slope	1.00  1.00	Very limited Slope Seepage	1.00 0.53
84: Logan-----	90	Very limited Slow water movement Depth to saturated zone Flooding	1.00  1.00  0.40	Very limited Depth to saturated zone Flooding	1.00  0.40
85: Lonigan-----	40	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00  1.00	Very limited Depth to soft bedrock Slope Seepage	1.00  1.00 1.00
Lizdale-----	40	Very limited Seepage, bottom layer Slope	1.00  1.00	Very limited Seepage Slope Content of large stones	1.00 1.00 0.10

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
86: Lonigan-----	45	Very limited Depth to bedrock Slope Seepage, bottom layer	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
Ricrest-----	30	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
87: Manila-----	85	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.53
88: Manila-----	80	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53
89: Manila-----	85	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
90: Manila-----	50	Very limited Slow water movement Slope	1.00 0.37	Very limited Slope Seepage	1.00 0.53
Bancroft-----	30	Somewhat limited Slow water movement Slope	0.46 0.37	Very limited Slope Seepage	1.00 0.53
91: Manila-----	50	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope Seepage	1.00 0.53
Broadhead-----	25	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
92: Manila-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
92: Broadhead-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
93: Manila-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
Lonigan-----	30	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00 1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 1.00
94: Manila-----	55	Very limited Slow water movement Slope	1.00 0.84	Very limited Slope Seepage	1.00 0.53
Yeates Hollow-----	30	Very limited Slow water movement Slope Content of large stones	1.00 0.84 0.19	Very limited Content of large stones Slope Seepage	1.00 1.00 0.53
95: Maplecreek-----	95	Very limited Depth to saturated zone Seepage, bottom layer Flooding	1.00 1.00 0.40	Very limited Seepage Depth to saturated zone Flooding	1.00 1.00 0.40
96: Maplecreek-----	45	Very limited Depth to saturated zone Seepage, bottom layer Flooding	1.00 1.00 0.40	Very limited Seepage Depth to saturated zone Flooding	1.00 1.00 0.40
Layton-----	35	Very limited Filtering capacity Seepage, bottom layer Depth to saturated zone	1.00 1.00 0.94	Very limited Seepage Depth to saturated zone	1.00 0.40

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
97: Merkley-----	45	Very limited Seepage, bottom layer Slow water movement Depth to saturated zone	1.00  0.46  0.40	Very limited Seepage	1.00
Lago-----	20	Very limited Depth to saturated zone Slow water movement Seepage, bottom layer Flooding	1.00  1.00  1.00  0.40	Very limited Depth to saturated zone Seepage Flooding	1.00  1.00  0.40
Bear Lake-----	15	Very limited Flooding Depth to saturated zone Seepage, bottom layer Slow water movement	1.00  1.00  1.00  0.72	Very limited Flooding Seepage Depth to saturated zone	1.00  1.00  1.00
98: Moonlight-----	40	Very limited Slope Slow water movement	1.00  0.46	Very limited Slope Seepage	1.00  0.53
Camelback-----	35	Very limited Slope Slow water movement	1.00  0.46	Very limited Slope Seepage	1.00  0.53
99: Niter-----	60	Very limited Slow water movement	1.00	Somewhat limited Slope	0.08
Brifox-----	20	Very limited Slow water movement	1.00	Somewhat limited Slope	0.08
100: Northwater-----	35	Very limited Slope Depth to bedrock Slow water movement Content of large stones	1.00  0.91  0.46  0.31	Very limited Slope Depth to hard bedrock Seepage Content of large stones	1.00  0.77  0.53  0.01

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
100: Foxol-----	25	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
Vitale-----	20	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
101: Northwater-----	65	Very limited Slope Slow water movement Content of large stones	1.00 0.46 0.31	Very limited Slope Seepage Content of large stones	1.00 0.53 0.01
Povey-----	25	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
102: Northwater-----	65	Very limited Slope Slow water movement Content of large stones	1.00 0.46 0.31	Very limited Slope Seepage Content of large stones	1.00 0.53 0.01
Povey-----	15	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
103: Nyman-----	50	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 0.46 0.46 0.13	Very limited Depth to hard bedrock Slope Seepage Content of large stones	1.00 1.00 0.53 0.04
Lonigan-----	20	Very limited Depth to bedrock Slope Seepage, bottom layer	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
103: Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
104: Oxford-----	45	Very limited Slow water movement	1.00	Somewhat limited Slope	0.08
Banida-----	35	Very limited Slow water movement	1.00	Somewhat limited Slope	0.08
105: Oxford-----	45	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
Banida-----	35	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
106: Oxford-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Banida-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
107: Oxford-----	65	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Gullied land-----	15	Not rated		Not rated	
108: Parkay-----	45	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 0.88	Very limited Slope Depth to hard bedrock Seepage	1.00 0.68 0.53
Povey-----	30	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
109: Parleys-----	85	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.53
110: Parleys-----	85	Very limited Slow water movement	1.00	Somewhat limited Slope Seepage	0.92 0.53
111: Parleys, wet-----	90	Very limited Slow water movement Depth to saturated zone Flooding	1.00 0.40 0.40	Somewhat limited Seepage Flooding	0.53 0.40
112: Pavohroo-----	30	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Sedgway-----	30	Very limited Slope Slow water movement Content of large stones	1.00 1.00 0.38	Very limited Slope Seepage Content of large stones	1.00 0.53 0.52
Toponce-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
113: Picabo-----	45	Very limited Depth to saturated zone Slow water movement Flooding	1.00 0.46 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 0.53 0.40
Thatcherflats-----	30	Very limited Slow water movement Depth to saturated zone Flooding	1.00 1.00 0.40	Somewhat limited Depth to saturated zone Flooding	0.99 0.40
114: Pits, gravel-----	100	Not rated		Not rated	
115: Pollynot-----	75	Very limited Seepage, bottom layer Slow water movement Slope	1.00 1.00 0.01	Very limited Seepage Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
116: Pollynnot-----	75	Very limited Seepage, bottom layer Slow water movement	1.00  1.00	Very limited Seepage	1.00
117: Pollynnot-----	75	Very limited Seepage, bottom layer Slow water movement	1.00  1.00	Very limited Seepage Slope	1.00 0.08
118: Pollynnot-----	75	Very limited Seepage, bottom layer Slow water movement Slope	1.00  1.00  0.63	Very limited Seepage Slope	1.00 1.00
119: Polumar-----	45	Very limited Slope Depth to bedrock Content of large stones Slow water movement	1.00 0.91 0.88  0.46	Very limited Slope Depth to hard bedrock Seepage Content of large stones	1.00 0.77  0.53 0.39
Ireland-----	30	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.52	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00  1.00 0.88 0.53
120: Polumar-----	30	Very limited Slope Depth to bedrock Content of large stones Slow water movement	1.00 0.91 0.88  0.46	Very limited Slope Depth to hard bedrock Seepage Content of large stones	1.00 0.77  0.53 0.39
Sprollo-----	30	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 0.46  0.26	Very limited Depth to hard bedrock Slope Seepage	1.00  1.00 0.53



# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
120: Ireland-----	20	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.52	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 0.88 0.53
121: Povey-----	35	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Hades-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Hondoho-----	15	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
122: Povey-----	45	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Parkay-----	30	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 0.88	Very limited Slope Depth to hard bedrock Seepage	1.00 0.68 0.53
123: Preston-----	90	Very limited Filtering capacity Seepage, bottom layer	1.00 1.00	Very limited Seepage	1.00
124: Preston-----	90	Very limited Filtering capacity Seepage, bottom layer	1.00 1.00	Very limited Seepage Slope	1.00 0.32
125: Preston-----	85	Very limited Filtering capacity Seepage, bottom layer Slope	1.00 1.00 1.00	Very limited Seepage Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
126: Preston-----	55	Very limited Filtering capacity Slope Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00
Xerorthents-----	20	Very limited Depth to bedrock Slope Seepage, bottom layer Content of large stones	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 1.00
127: Ricrest-----	90	Somewhat limited Slow water movement Slope	0.46 0.01	Very limited Slope Seepage	1.00 0.53
128: Sanyon-----	30	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 0.53
Staberg-----	30	Very limited Depth to bedrock Slope Seepage, bottom layer Slow water movement	1.00 1.00 1.00 0.46	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
Kabear-----	20	Very limited Slope Seepage, bottom layer Slow water movement	1.00 1.00 0.46	Very limited Slope Seepage	1.00 1.00
129: Smidale-----	85	Very limited Slope Slow water movement Content of large stones	1.00 0.46 0.05	Very limited Slope Seepage Content of large stones	1.00 0.53 0.49
130: Smidale-----	45	Very limited Slope Slow water movement Content of large stones	1.00 0.46 0.05	Very limited Slope Seepage Content of large stones	1.00 0.53 0.49

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
130: Staberg-----	40	Very limited Depth to bedrock Slope Seepage, bottom layer Slow water movement	1.00 1.00 1.00 0.46	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
131: Sprollo-----	45	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 0.46 0.26	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
Hondoho-----	35	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
132: Sprollo-----	40	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 0.46 0.26	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
Hymas-----	35	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.01	Very limited Depth to hard bedrock Slope Seepage Content of large stones	1.00 1.00 0.53 0.02
133: Sterling-----	85	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage	0.53
134: Sterling-----	85	Somewhat limited Slow water movement	0.46	Very limited Slope Seepage	1.00 0.53
135: Sterling-----	90	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
136: Sterling-----	85	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
137: Sterling-----	50	Somewhat limited Slow water movement	0.46	Somewhat limited Seepage Slope	0.53 0.08
Parleys-----	30	Very limited Slow water movement	1.00	Somewhat limited Seepage Slope	0.53 0.08
138: Thatcher-----	45	Very limited Slow water movement Slope	1.00 0.84	Very limited Slope Seepage	1.00 0.53
Bearhollow-----	35	Somewhat limited Slope Slow water movement	0.84 0.46	Very limited Slope Seepage	1.00 0.53
139: Toponce-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Broadhead-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
140: Trenton-----	50	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
Battle Creek-----	40	Very limited Slow water movement Depth to saturated zone	1.00 0.65	Somewhat limited Depth to saturated zone	0.02
141: Trenton, cool-----	50	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
141: Battle Creek, cool--	40	Very limited Slow water movement Depth to saturated zone	1.00 0.65	Somewhat limited Depth to saturated zone	0.02
142: Trenton-----	45	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
Parleys-----	35	Very limited Slow water movement Depth to saturated zone Flooding	1.00 0.40 0.40	Somewhat limited Seepage Flooding	0.53 0.40
143: Valmar-----	40	Very limited Depth to bedrock Slope Content of large stones Slow water movement	1.00 1.00 1.00 0.46	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
Camelback-----	25	Very limited Slope Slow water movement	1.00 0.46	Very limited Slope Seepage	1.00 0.53
Hades-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
144: Vitale-----	40	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
Bergquist-----	25	Very limited Slope Seepage, bottom layer Filtering capacity Depth to bedrock	1.00 1.00 1.00 0.59	Very limited Slope Seepage Depth to hard bedrock	1.00 1.00 0.13
Rock outcrop-----	15	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
145: Vitale-----	35	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
Yeates Hollow-----	25	Very limited Slow water movement Slope Content of large stones	1.00 1.00 0.19	Very limited Slope Content of large stones Seepage	1.00 1.00 0.53
Northwater-----	15	Very limited Slope Depth to bedrock Slow water movement Content of large stones	1.00 0.91 0.46 0.46 0.31	Very limited Slope Depth to hard bedrock Seepage Content of large stones	1.00 0.77 0.53 0.01
146: Welby-----	90	Very limited Seepage, bottom layer Slow water movement	1.00 0.46	Very limited Seepage	1.00
147: Welby-----	90	Very limited Seepage, bottom layer Slow water movement	1.00 0.46	Very limited Seepage Slope	1.00 0.08
148: Welby, wet-----	85	Very limited Seepage, bottom layer Slow water movement Depth to saturated zone	1.00 0.46 0.40	Very limited Seepage	1.00
149: Collinston-----	40	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00
Wheelon-----	40	Very limited Slow water movement Slope	1.00 0.01	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
150: Wheelon-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
Collinston-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope	1.00
151: Wheelon-----	45	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
Collinston-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Slope	1.00
152: Windernot-----	40	Very limited Filtering capacity Seepage, bottom layer Flooding Depth to saturated zone	1.00 1.00 0.40 0.22	Very limited Seepage Flooding	1.00 0.40
Lewnot-----	20	Very limited Depth to saturated zone Seepage, bottom layer Flooding	1.00 1.00 1.00 0.40	Very limited Seepage Depth to saturated zone Flooding	1.00 1.00 0.40
Stinkcreek-----	15	Very limited Depth to saturated zone Filtering capacity Seepage, bottom layer Flooding	1.00 1.00 1.00 1.00 0.40	Very limited Seepage Depth to saturated zone Flooding	1.00 1.00 0.40
153: Winn-----	90	Very limited Depth to saturated zone Slow water movement Flooding	1.00 0.46 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 0.53 0.40
154: Winwell-----	80	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
155: Winwell-----	45	Very limited Slow water movement	1.00	Somewhat limited Slope Seepage	0.68 0.53
Collinston-----	35	Very limited Slow water movement	1.00	Somewhat limited Slope	0.68
156: Wormcreek-----	50	Very limited Slope Depth to bedrock Slow water movement Content of large stones	1.00 0.86 0.46 1.13	Very limited Slope Depth to soft bedrock Seepage	1.00 0.61 0.53
Copenhagen-----	30	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.53
157: Wormcreek-----	45	Very limited Slope Depth to bedrock Slow water movement Content of large stones	1.00 0.86 0.46 0.13	Very limited Slope Depth to soft bedrock Seepage	1.00 0.61 0.53
Lonigan-----	35	Very limited Depth to bedrock Slope Seepage, bottom layer	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00
158: Wursten-----	45	Very limited Slope Seepage, bottom layer Slow water movement	1.00 1.00 0.46	Very limited Slope Seepage	1.00 1.00
Dirtyhead-----	35	Very limited Depth to bedrock Slope Slow water movement	1.00 1.00 0.46	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 0.53
159: Xerochrepts-----	30	Very limited Slope Slow water movement	1.00 0.72	Very limited Slope Seepage	1.00 0.53



# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
159: Wormcreek-----	25	Very limited Slope Depth to bedrock Slow water movement Content of large stones	1.00 0.86 0.46 0.13	Very limited Slope Depth to soft bedrock Seepage	1.00 0.61 0.53
Xerorthents-----	20	Very limited Depth to bedrock Slope Seepage, bottom layer Content of large stones	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 1.00
160: Xerorthents-----	75	Very limited Depth to bedrock Slope Seepage, bottom layer Content of large stones	1.00 1.00 1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 1.00
161: Yeates Hollow-----	85	Very limited Slow water movement Slope Content of large stones	1.00 1.00 0.19	Very limited Slope Content of large stones Seepage	1.00 1.00 0.53
162: Yeates Hollow-----	40	Very limited Slow water movement Slope Content of large stones	1.00 1.00 0.19	Very limited Slope Content of large stones Seepage	1.00 1.00 0.53
Manila-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.53
Softback-----	15	Very limited Slow water movement Slope Content of large stones	1.00 1.00 0.12	Very limited Slope Seepage Content of large stones	1.00 0.53 0.18
163: Yeates Hollow-----	45	Very limited Slope Slow water movement Content of large stones	1.00 1.00 0.19	Very limited Slope Content of large stones Seepage	1.00 1.00 0.53

# Soil Survey of Franklin County Area, Idaho

Table 12.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
163: Vitale-----	35	Very limited Depth to bedrock Slope Slow water movement Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to hard bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 0.53
164: Water-----	100	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Depth to saturated zone Excess sodium Excess salt Too clayey Flooding	1.00  1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00  0.40	Very limited Sodium content Salinity Too clayey Depth to saturated zone	1.00 1.00 0.50 0.47
2: Ant Flat-----	85	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
3: Ant Flat-----	85	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
4: Ant Flat-----	90	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
5: Ant Flat-----	65	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
Oxford-----	25	Very limited Too clayey Slope	1.00 0.04	Somewhat limited Slope	0.04	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.04
6: Ant Flat-----	50	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
Oxford-----	35	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
7: Arbone-----	80	Very limited Seepage, bottom layer	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.52
8: Banida-----	85	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9: Banida-----	80	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
10: Battle Creek-----	85	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact	1.00 1.00
11: Battle Creek-----	85	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact	1.00 1.00
12: Battle Creek-----	95	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
13: Bear Lake-----	40	Very limited Flooding Depth to saturated zone Seepage, bottom layer Ponding Too clayey	1.00 1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding Too clayey	1.00 1.00 1.00 1.00 0.50
Chesbrook-----	30	Very limited Depth to saturated zone Too clayey Flooding	1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Hard to compact Carbonate content Too clayey	1.00 1.00 1.00 0.50
Picabo-----	15	Very limited Depth to saturated zone Excess sodium Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Sodium content Carbonate content Depth to saturated zone	1.00 1.00 0.09
14: Bear Lake-----	50	Very limited Flooding Depth to saturated zone Seepage, bottom layer Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Too clayey	1.00 1.00 1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14: Downata-----	35	Very limited Flooding Depth to saturated zone Ponding Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Too clayey	1.00 1.00 0.50
15: Bear Lake-----	50	Very limited Flooding Depth to saturated zone Seepage, bottom layer Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Too clayey	1.00 1.00 0.50
Downata-----	25	Very limited Flooding Depth to saturated zone Ponding Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Too clayey	1.00 1.00 0.50
Thatcherflats-----	20	Very limited Depth to saturated zone Excess sodium Too clayey Flooding	1.00 1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Sodium content Too clayey	1.00 0.50
16: Bear Lake-----	65	Very limited Flooding Depth to saturated zone Seepage, bottom layer Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Too clayey	1.00 1.00 0.50
Lago-----	30	Very limited Depth to saturated zone Seepage, bottom layer Flooding	1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 1.00 0.40	Somewhat limited Depth to saturated zone	0.68
17: Bearhollow-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.84
Brifox-----	25	Very limited Slope Too clayey	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 1.00 1.00
Iphil-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
18: Bergquist-----	60	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 0.14	Very limited Slope Gravel content Seepage Depth to bedrock	1.00 1.00 1.00 0.14
Rubble land-----	15	Not rated		Very limited Slope	1.00	Not rated	
19: Bergquist-----	45	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 0.14	Very limited Slope Gravel content Seepage Depth to bedrock	1.00 1.00 1.00 0.14
Softback-----	30	Very limited Slope Too clayey Large stones	1.00 0.50 0.26	Very limited Slope	1.00	Very limited Slope Too clayey Large stones Gravel content	1.00 0.50 0.26 0.25
20: Bergquist-----	55	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 0.14	Very limited Slope Gravel content Seepage Depth to bedrock	1.00 1.00 1.00 0.14
Vitale-----	25	Very limited Slope Depth to bedrock Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50
21: Bothwell-----	80	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
22: Bothwell-----	80	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
23: Bothwell-----	35	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Hades-----	30	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Justesen-----	20	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
24: Bothwell-----	40	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
Thatcher-----	35	Not limited		Not limited		Not limited	
25: Brifox-----	40	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
Huffman-----	35	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
26: Brifox-----	40	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
Huffman-----	35	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
27: Brifox-----	55	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
Niter-----	25	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
28: Brifox-----	65	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
Niter-----	20	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
29: Brifox-----	55	Very limited Slope Too clayey	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 1.00 1.00
Niter-----	25	Very limited Slope Too clayey	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
30: Broadhead-----	30	Somewhat limited Slope Too clayey	0.63 0.50	Somewhat limited Slope	0.63	Very limited Hard to compact Slope Too clayey	1.00 0.63 0.50
Hades-----	25	Somewhat limited Slope Too clayey	0.63 0.50	Somewhat limited Slope	0.63	Somewhat limited Slope Too clayey	0.63 0.50
Yago-----	25	Very limited Large stones Slope Too clayey	1.00 0.63 0.50	Somewhat limited Slope	0.63	Very limited Large stones Slope Too clayey	1.00 0.63 0.50
31: Broadhead-----	40	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
Yago-----	35	Very limited Slope Large stones Too clayey	1.00 1.00 0.50	Very limited Slope	1.00	Very limited Slope Large stones Too clayey	1.00 1.00 0.50
32: Camelback-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Lonigan-----	25	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
33: Camelback-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Hades-----	20	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Valmar-----	20	Very limited Slope Depth to bedrock Large stones	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones	1.00 1.00 1.00
34: Cedarhill-----	90	Very limited Seepage, bottom layer Slope	1.00 1.00	Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Slope Seepage	1.00 1.00 0.52



# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
35: Cedarhill-----	40	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
Hades-----	25	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Ricrest-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.05
36: Cedarhill-----	35	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
Hondoho-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Ridgecrest-----	20	Very limited Slope Depth to bedrock Large stones	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Carbonate content	1.00 1.00 1.00 1.00
37: Chesbrook-----	60	Very limited Depth to saturated zone Too clayey Flooding	1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Hard to compact Carbonate content Too clayey	1.00 1.00 1.00 0.50
Bear Lake-----	20	Very limited Flooding Depth to saturated zone Seepage, bottom layer Too clayey	1.00 1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Too clayey	1.00 1.00 1.00 0.50
38: Cloudless-----	50	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Gravel content Slope	0.50 0.01 0.01
Hades-----	40	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
39: Cloudless-----	35	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content	1.00 0.50 0.01

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
39: Hades-----	30	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Howcan-----	20	Very limited Slope Large stones	1.00 0.07	Very limited Slope	1.00	Very limited Slope Gravel content Large stones	1.00 0.12 0.07
40: Copenhagen-----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.91
Lonigan-----	30	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00 1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 0.74 0.52
Manila-----	20	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
41: Delish-----	40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Somewhat limited Depth to saturated zone	0.86
Cachecan-----	25	Very limited Depth to saturated zone Too clayey Flooding	1.00 0.50 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Somewhat limited Too clayey Depth to saturated zone	0.50 0.09
Stinkcreek-----	15	Very limited Depth to saturated zone Seepage, bottom layer Too sandy Excess sodium Flooding	1.00 1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Too sandy Seepage Sodium content Gravel content	1.00 1.00 1.00 1.00 0.99
42: Downata-----	80	Very limited Flooding Depth to saturated zone Ponding Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Too clayey	1.00 1.00 0.50
43: Dranburn-----	45	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
43: Robin-----	35	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
44: Enochville-----	75	Very limited Flooding Depth to saturated zone Seepage, bottom layer	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	0.99
45: Foxol-----	45	Very limited Slope Depth to bedrock Large stones	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones	1.00 1.00 1.00
Vitale-----	30	Very limited Slope Depth to bedrock Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50
46: Hades-----	35	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Camelback-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Hondoho-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
47: Hades-----	25	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Lanoak-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
48: Haploxerolls-----	45	Very limited Slope Seepage, bottom layer Too sandy	1.00 1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage Gravel content Too sandy	1.00 1.00 0.79 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48: Xerorthents-----	30	Very limited Slope Depth to bedrock Seepage, bottom layer Large stones	1.00 1.00 1.00 0.04	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage Large stones	1.00 1.00 0.91 0.16 0.04
49: Hendricks-----	90	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
50: Holmes-----	90	Very limited Seepage, bottom layer Too sandy Flooding Large stones	1.00 1.00 0.40 0.02	Very limited Seepage Flooding	1.00 0.40	Very limited Too sandy Seepage Gravel content Large stones	1.00 1.00 0.36 0.02
51: Hondee-----	85	Very limited Seepage, bottom layer Too sandy	1.00 0.50	Very limited Seepage	1.00	Very limited Seepage Gravel content Too sandy	1.00 0.99 0.50
52: Hondee-----	75	Very limited Seepage, bottom layer Too sandy Slope	1.00 0.50 0.01	Very limited Seepage Slope	1.00 0.01	Very limited Seepage Gravel content Too sandy Slope	1.00 0.99 0.50 0.01
53: Hondoho-----	50	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Very limited Gravel content Slope	1.00 0.01
Hades-----	30	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
54: Hondoho-----	50	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Gravel content Slope	1.00 0.63
Ricrest-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Somewhat limited Gravel content Slope	0.05 0.01
55: Hondoho-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Gravel content Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
55: Sprollo-----	30	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.26	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Carbonate content Large stones	1.00 1.00 1.00 0.26
Hades-----	20	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
56: Hondoho-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Vitale-----	30	Very limited Slope Depth to bedrock Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50
57: Huffman-----	80	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
58: Huffman-----	80	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
59: Huffman-----	45	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01
Dirtyhead-----	30	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Depth to bedrock Gravel content Slope	1.00 1.00 0.01
60: Huffman-----	35	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
Harroun-----	30	Very limited Seepage, bottom layer Depth to thin cemented pan Slope	1.00 0.50 0.01	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.01	Very limited Depth to cemented pan Gravel content Slope	1.00 0.61 0.01
Lanoak-----	25	Not limited		Not limited		Not limited	
61: Huffman-----	45	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Somewhat limited Too clayey Slope	0.50 0.01

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
61: Wursten-----	35	Very limited Seepage, bottom layer Slope	1.00  0.01	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage Slope	0.22 0.01
62: Iphil-----	60	Somewhat limited Slope	0.96	Somewhat limited Slope	0.96	Somewhat limited Slope	0.96
Lonigan-----	20	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00  0.96	Very limited Seepage Depth to bedrock Slope	1.00 1.00 0.96	Very limited Depth to bedrock Gravel content Slope Seepage	1.00 1.00 0.96 0.52
63: Ireland-----	50	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.52	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Gravel content	1.00 1.00 0.52 0.16
Polumar-----	25	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.96	Very limited Slope Depth to bedrock	1.00 0.77	Very limited Slope Large stones Depth to bedrock	1.00 0.96 0.77
64: Kabear-----	50	Very limited Seepage, bottom layer Slope	1.00  0.01	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
Staberg-----	25	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00  0.01	Very limited Seepage Depth to bedrock Slope	1.00 1.00 0.01	Very limited Depth to bedrock Slope	1.00 0.01
Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Depth to bedrock Gravel content Slope	1.00 0.91 0.01
65: Kabear-----	50	Very limited Seepage, bottom layer Slope	1.00  1.00	Very limited Slope	1.00	Very limited Slope	1.00
Staberg-----	25	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00  1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.91

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
66: Kearns-----	80	Not limited		Not limited		Not limited	
67: Kearnsar-----	60	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Not limited	
Battle Creek-----	25	Very limited Depth to saturated zone Too clayey	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact	1.00 1.00
68: Kidman-----	90	Not limited		Not limited		Not limited	
69: Kidman-----	85	Not limited		Not limited		Not limited	
70: Kidman-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
71: Kidman, wet-----	85	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Not limited	
72: Kidman-----	45	Not limited		Not limited		Not limited	
Sterling-----	30	Not limited		Not limited		Very limited Gravel content	1.00
73: Lando-----	75	Very limited Depth to saturated zone Too clayey	1.00 0.50	Very limited Depth to saturated zone	1.00	Somewhat limited Too clayey Depth to saturated zone	0.50 0.09
74: Lanoak-----	75	Not limited		Not limited		Not limited	
75: Lanoak-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
76: Lanoak-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Broadhead-----	40	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
77: Lanoak-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77: Broadhead-----	30	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Hard to compact Too clayey	1.00 1.00 0.50
Hades-----	15	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
78: Lanoak-----	40	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84
Hades-----	35	Somewhat limited Slope Too clayey	0.84 0.50	Somewhat limited Slope	0.84	Somewhat limited Slope Too clayey	0.84 0.50
79: Lanoak-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Thatcher-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
80: Layton-----	85	Very limited Depth to saturated zone Seepage, bottom layer Too sandy	1.00 1.00 0.50	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Seepage Too sandy	1.00 0.50
81: Layton-----	80	Very limited Depth to saturated zone Seepage, bottom layer Too sandy	1.00 1.00 0.50	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Seepage Too sandy	1.00 0.50
82: Lizdale-----	80	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Carbonate content Gravel content Seepage	1.00 1.00 0.81 0.22
83: Lizdale-----	55	Very limited Seepage, bottom layer Slope	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Carbonate content Gravel content Seepage	1.00 1.00 0.81 0.22
Searla-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Gravel content Slope	1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
84: Logan-----	90	Very limited Depth to saturated zone Too clayey Flooding	1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Too clayey	1.00 0.50
85: Lonigan-----	40	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00 1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 0.74 0.52
Lizdale-----	40	Very limited Seepage, bottom layer Slope	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Carbonate content Gravel content Seepage	1.00 1.00 0.81 0.22
86: Lonigan-----	45	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
Ricrest-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.05
87: Manila-----	85	Somewhat limited Too clayey	0.50	Not limited		Very limited Hard to compact Too clayey	1.00 0.50
88: Manila-----	80	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Very limited Hard to compact Too clayey Slope	1.00 0.50 0.01
89: Manila-----	85	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
90: Manila-----	50	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Very limited Hard to compact Too clayey Slope	1.00 0.50 0.37
Bancroft-----	30	Somewhat limited Too clayey Slope	0.50 0.37	Somewhat limited Slope	0.37	Somewhat limited Too clayey Slope	0.50 0.37

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
91: Manila-----	50	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Very limited Hard to compact Too clayey Slope	1.00 0.50 0.01
Broadhead-----	25	Somewhat limited Too clayey Slope	0.50 0.01	Somewhat limited Slope	0.01	Very limited Hard to compact Too clayey Slope	1.00 0.50 0.01
92: Manila-----	40	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
Broadhead-----	35	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
93: Manila-----	50	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
Lonigan-----	30	Very limited Depth to bedrock Seepage, bottom layer Slope	1.00 1.00 1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 0.74 0.52
94: Manila-----	55	Somewhat limited Slope Too clayey	0.84 0.50	Somewhat limited Slope	0.84	Very limited Hard to compact Slope Too clayey	1.00 0.84 0.50
Yeates Hollow-----	30	Somewhat limited Slope Too clayey Large stones	0.84 0.50 0.04	Somewhat limited Slope	0.84	Somewhat limited Slope Too clayey Gravel content Large stones	0.84 0.50 0.13 0.04
95: Maplecreek-----	95	Very limited Depth to saturated zone Seepage, bottom layer Too sandy Flooding	1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Somewhat limited Seepage Too sandy Depth to saturated zone	0.52 0.50 0.24

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
96: Maplecreek-----	45	Very limited Depth to saturated zone Seepage, bottom layer Too sandy Flooding	1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Somewhat limited Seepage Too sandy Depth to saturated zone	0.52 0.50 0.24
Layton-----	35	Very limited Depth to saturated zone Seepage, bottom layer Too sandy	1.00 1.00 0.50	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Seepage Too sandy	1.00 0.50
97: Merkley-----	45	Very limited Depth to saturated zone Seepage, bottom layer	1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Not limited	
Lago-----	20	Very limited Depth to saturated zone Seepage, bottom layer Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Somewhat limited Depth to saturated zone	0.68
Bear Lake-----	15	Very limited Flooding Depth to saturated zone Seepage, bottom layer Too clayey	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Too clayey	1.00 1.00 0.50
98: Moonlight-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
99: Niter-----	60	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
Brifox-----	20	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
100: Northwater-----	35	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.44	Very limited Slope Depth to bedrock	1.00 0.77	Very limited Slope Depth to bedrock Large stones Gravel content	1.00 0.77 0.44 0.20

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
100: Foxol-----	25	Very limited Slope Depth to bedrock Large stones	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones	1.00 1.00 1.00
Vitale-----	20	Very limited Slope Depth to bedrock Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50
101: Northwater-----	65	Very limited Slope Large stones	1.00 0.09	Very limited Slope	1.00	Very limited Slope Large stones Gravel content	1.00 0.09 0.02
Povey-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.96
102: Northwater-----	65	Very limited Slope Large stones	1.00 0.09	Very limited Slope	1.00	Very limited Slope Large stones Gravel content	1.00 0.09 0.02
Povey-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.96
103: Nyman-----	50	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.13	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones	1.00 1.00 0.13
Lonigan-----	20	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
Copenhagen-----	15	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.91
104: Oxford-----	45	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00
Banida-----	35	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
105: Oxford-----	45	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
Banida-----	35	Very limited Too clayey Slope	1.00 0.01	Somewhat limited Slope	0.01	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.01
106: Oxford-----	50	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
Banida-----	35	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
107: Oxford-----	65	Very limited Slope Too clayey	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 1.00 1.00
Gullied land-----	15	Not rated		Very limited Slope	1.00	Not rated	
108: Parkay-----	45	Very limited Slope Depth to bedrock Too clayey	1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 0.68	Very limited Slope Gravel content Depth to bedrock Too clayey	1.00 0.75 0.68 0.50
Povey-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.96
109: Parleys-----	85	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
110: Parleys-----	85	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
111: Parleys, wet-----	90	Very limited Depth to saturated zone Too clayey Flooding	1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Somewhat limited Too clayey	0.50
112: Pavohroo-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
112: Sedgway-----	30	Very limited Slope Large stones Too clayey	1.00 0.63 0.50	Very limited Slope	1.00	Very limited Slope Large stones Too clayey	1.00 0.63 0.50
Toponce-----	20	Very limited Slope Too clayey	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Hard to compact	1.00 1.00 1.00
113: Picabo-----	45	Very limited Depth to saturated zone Excess sodium Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Sodium content Carbonate content Depth to saturated zone	1.00 1.00 0.09
Thatcherflats-----	30	Very limited Depth to saturated zone Excess sodium Too clayey Flooding	1.00 1.00 0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Sodium content Too clayey	1.00 0.50
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Very limited Seepage, bottom layer Slope	1.00 0.01	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
116: Pollynot-----	75	Very limited Seepage, bottom layer	1.00	Not limited		Not limited	
117: Pollynot-----	75	Very limited Seepage, bottom layer	1.00	Not limited		Not limited	
118: Pollynot-----	75	Very limited Seepage, bottom layer Slope	1.00 0.63	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63
119: Polumar-----	45	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.96	Very limited Slope Depth to bedrock	1.00 0.77	Very limited Slope Large stones Depth to bedrock	1.00 0.96 0.77
Ireland-----	30	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.52	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Gravel content	1.00 1.00 0.52 0.16

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
120: Polumar-----	30	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.96	Very limited Slope Depth to bedrock	1.00 0.77	Very limited Slope Large stones Depth to bedrock	1.00 0.96 0.77
Sprollo-----	30	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.26	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Carbonate content Large stones	1.00 1.00 1.00 0.26
Ireland-----	20	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.52	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Gravel content	1.00 1.00 0.52 0.16
121: Povey-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.96
Hades-----	30	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
Hondoho-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Gravel content Slope	1.00 1.00
122: Povey-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 0.96
Parkay-----	30	Very limited Slope Depth to bedrock Too clayey	1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 0.68	Very limited Slope Gravel content Depth to bedrock Too clayey	1.00 0.75 0.68 0.50
123: Preston-----	90	Very limited Seepage, bottom layer Too sandy	1.00 0.50	Very limited Seepage	1.00	Very limited Seepage Too sandy	1.00 0.50
124: Preston-----	90	Very limited Seepage, bottom layer Too sandy	1.00 0.50	Very limited Seepage	1.00	Very limited Seepage Too sandy	1.00 0.50
125: Preston-----	85	Very limited Seepage, bottom layer Slope Too sandy	1.00 1.00 0.50	Very limited Seepage Slope	1.00 1.00	Very limited Seepage Slope Too sandy	1.00 1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
126: Preston-----	55	Very limited Slope Seepage, bottom layer Too sandy	1.00 1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage Too sandy	1.00 1.00 0.50
Xerorthents-----	20	Very limited Slope Depth to bedrock Seepage, bottom layer Large stones	1.00 1.00 1.00 0.04	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage Large stones	1.00 1.00 0.91 0.16 0.04
127: Ricrest-----	90	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Somewhat limited Gravel content Slope	0.05 0.01
128: Sanyon-----	30	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Staberg-----	30	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
Kabear-----	20	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope	1.00	Very limited Slope	1.00
129: Smidale-----	85	Very limited Slope Large stones	1.00 0.08	Very limited Slope	1.00	Very limited Slope Large stones Gravel content	1.00 0.08 0.08
130: Smidale-----	45	Very limited Slope Large stones	1.00 0.08	Very limited Slope	1.00	Very limited Slope Large stones Gravel content	1.00 0.08 0.08
Staberg-----	40	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
131: Sprollow-----	45	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.26	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Carbonate content Large stones	1.00 1.00 1.00 0.26



# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
131: Hondoho-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
132: Sprollo-----	40	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.26	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Carbonate content Large stones	1.00 1.00 1.00 0.26
Hymas-----	35	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.01	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Large stones	1.00 1.00 0.56 0.01
133: Sterling-----	85	Not limited		Not limited		Very limited Gravel content	1.00
134: Sterling-----	85	Not limited		Not limited		Very limited Gravel content	1.00
135: Sterling-----	90	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Gravel content Slope	1.00 1.00
136: Sterling-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
137: Sterling-----	50	Not limited		Not limited		Very limited Gravel content	1.00
Parleys-----	30	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
138: Thatcher-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84
Bearhollow-----	35	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Somewhat limited Gravel content Slope	0.84 0.84
139: Toponce-----	50	Very limited Too clayey Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
Broadhead-----	30	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
140: Trenton-----	50	Very limited Depth to saturated zone Excess sodium Too clayey	1.00  1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Sodium content Too clayey Depth to saturated zone	1.00 0.50 0.09
Battle Creek-----	40	Very limited Depth to saturated zone Too clayey	1.00  1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact	1.00 1.00
141: Trenton, cool-----	50	Very limited Depth to saturated zone Excess sodium Too clayey	1.00  1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Sodium content Too clayey Depth to saturated zone	1.00 0.50 0.09
Battle Creek, cool--	40	Very limited Depth to saturated zone Too clayey	1.00  1.00	Very limited Depth to saturated zone	1.00	Very limited Too clayey Hard to compact	1.00 1.00
142: Trenton-----	45	Very limited Depth to saturated zone Excess sodium Too clayey	1.00  1.00 0.50	Very limited Depth to saturated zone	1.00	Very limited Sodium content Too clayey Depth to saturated zone	1.00 0.50 0.09
Parleys-----	35	Very limited Depth to saturated zone Too clayey Flooding	1.00  0.50 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Somewhat limited Too clayey	0.50
143: Valmar-----	40	Very limited Slope Depth to bedrock Large stones	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones	1.00 1.00 1.00
Camelback-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Gravel content	1.00 1.00
Hades-----	20	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
144: Vitale-----	40	Very limited Slope Depth to bedrock Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
144: Bergquist-----	25	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 0.14	Very limited Slope Gravel content Seepage Depth to bedrock	1.00 1.00 1.00 0.14
Rock outcrop-----	15	Not rated		Very limited Slope Depth to bedrock	1.00 1.00	Not rated	
145: Vitale-----	35	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50
Yeates Hollow-----	25	Very limited Slope Too clayey Large stones	1.00 0.50 0.04	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content Large stones	1.00 0.50 0.13 0.04
Northwater-----	15	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.44	Very limited Slope Depth to bedrock	1.00 0.77	Very limited Slope Depth to bedrock Large stones Gravel content	1.00 0.77 0.44 0.20
146: Welby-----	90	Very limited Seepage, bottom layer	1.00	Not limited		Not limited	
147: Welby-----	90	Very limited Seepage, bottom layer	1.00	Not limited		Not limited	
148: Welby, wet-----	85	Very limited Depth to saturated zone Seepage, bottom layer	1.00 1.00	Very limited Depth to saturated zone	1.00	Not limited	
149: Collinston-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
Wheelon-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
150: Wheelon-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Collinston-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
151: Wheelon-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Collinston-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
152: Windernot-----	40	Very limited Depth to saturated zone Seepage, bottom layer Too sandy Flooding	1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
Lewnot-----	20	Very limited Depth to saturated zone Seepage, bottom layer Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Somewhat limited Depth to saturated zone Seepage	0.24 0.22
Stinkcreek-----	15	Very limited Depth to saturated zone Seepage, bottom layer Too sandy Excess sodium Flooding	1.00 1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Seepage Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Too sandy Seepage Sodium content Gravel content	1.00 1.00 1.00 1.00 0.99
153: Winn-----	90	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Somewhat limited Depth to saturated zone	0.09
154: Winwell-----	80	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
155: Winwell-----	45	Somewhat limited Too clayey	0.50	Not limited		Somewhat limited Too clayey	0.50
Collinston-----	35	Not limited		Not limited		Not limited	
156: Wormcreek-----	50	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.29	Very limited Slope Depth to bedrock	1.00 0.61	Very limited Slope Depth to bedrock Gravel content Large stones	1.00 0.61 0.54 0.29
Copenhagen-----	30	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.91

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
157: Wormcreek-----	45	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.29	Very limited Slope Depth to bedrock	1.00 0.61	Very limited Slope Depth to bedrock Gravel content Large stones	1.00 0.61 0.54 0.29
Lonigan-----	35	Very limited Slope Depth to bedrock Seepage, bottom layer	1.00 1.00 1.00	Very limited Slope Seepage Depth to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
158: Wursten-----	45	Very limited Slope Seepage, bottom layer	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage	1.00 0.22
Dirtyhead-----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Gravel content Slope	1.00 1.00 1.00
159: Xerochrepts-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Wormcreek-----	25	Very limited Slope Depth to bedrock Large stones	1.00 1.00 0.29	Very limited Slope Depth to bedrock	1.00 0.61	Very limited Slope Depth to bedrock Gravel content Large stones	1.00 0.61 0.54 0.29
Xerorthents-----	20	Very limited Slope Depth to bedrock Seepage, bottom layer Large stones	1.00 1.00 1.00 0.04	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage Large stones	1.00 1.00 0.91 0.16 0.04
160: Xerorthents-----	75	Very limited Slope Depth to bedrock Seepage, bottom layer Large stones	1.00 1.00 1.00 0.04	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage Large stones	1.00 1.00 0.91 0.16 0.04
161: Yeates Hollow-----	85	Very limited Slope Too clayey Large stones	1.00 0.50 0.04	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content Large stones	1.00 0.50 0.13 0.04

# Soil Survey of Franklin County Area, Idaho

Table 13.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
162: Yeates Hollow-----	40	Very limited Slope Too clayey Large stones	1.00 0.50 0.04	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content Large stones	1.00 0.50 0.13 0.04
Manila-----	25	Very limited Slope Too clayey	1.00 0.50	Very limited Slope	1.00	Very limited Hard to compact Slope Too clayey	1.00 1.00 0.50
Softback-----	15	Very limited Slope Too clayey Large stones	1.00 0.50 0.26	Very limited Slope	1.00	Very limited Slope Too clayey Large stones Gravel content	1.00 0.50 0.26 0.25
163: Yeates Hollow-----	45	Very limited Slope Too clayey Large stones	1.00 0.50 0.04	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content Large stones	1.00 0.50 0.13 0.04
Vitale-----	35	Very limited Slope Depth to bedrock Large stones Too clayey	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Large stones Too clayey	1.00 1.00 1.00 0.50
164: Water-----	100	Not rated		Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Sodium content Slow water movement Salinity Depth to saturated zone Runoff	1.00 1.00 1.00 0.86 0.40	Very limited Sodium content Slow water movement Salinity Depth to saturated zone Flooding	1.00 1.00 1.00 0.86 0.40
2: Ant Flat-----	85	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
3: Ant Flat-----	85	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
4: Ant Flat-----	90	Very limited Slow water movement Runoff Slope	1.00 0.40 0.01	Very limited Slow water movement Slope	1.00 0.01
5: Ant Flat-----	65	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
Oxford-----	25	Very limited Slow water movement Runoff Slope	1.00 0.40 0.04	Very limited Slow water movement Slope	1.00 0.04
6: Ant Flat-----	50	Very limited Slow water movement Slope Runoff	1.00 1.00 0.40	Very limited Slow water movement Slope	1.00 1.00
Oxford-----	35	Very limited Slow water movement Slope Runoff	1.00 1.00 0.40	Very limited Slow water movement Slope	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
7: Arbone-----	80	Somewhat limited Filtering capacity	0.01	Somewhat limited Filtering capacity	0.01
8: Banida-----	85	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
9: Banida-----	80	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
10: Battle Creek-----	85	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
11: Battle Creek-----	85	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
12: Battle Creek-----	95	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
13: Bear Lake-----	40	Very limited Depth to saturated zone Ponding Flooding Slow water movement Runoff	1.00 1.00 0.60 0.41 0.40	Very limited Depth to saturated zone Flooding Ponding Slow water movement Filtering capacity	1.00 1.00 1.00 0.31 0.01
Chesbrook-----	30	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement Runoff	1.00 0.99 0.50 0.41 0.40	Very limited Depth to saturated zone Filtering capacity Too acid Flooding Slow water movement	1.00 0.99 0.99 0.40 0.31



# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
13: Picabo-----	15	Very limited Sodium content Depth to saturated zone	1.00 0.43	Very limited Sodium content Depth to saturated zone Flooding	1.00 0.43 0.40
14: Bear Lake-----	50	Very limited Depth to saturated zone Flooding Slow water movement Runoff Filtering capacity	1.00 1.00 0.41 0.40 0.01	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.31 0.01
Downata-----	35	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.50	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99
15: Bear Lake-----	50	Very limited Depth to saturated zone Flooding Slow water movement Runoff Filtering capacity	1.00 1.00 0.41 0.40 0.01	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.31 0.01
Downata-----	25	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.50	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99
Thatcherflats-----	20	Very limited Slow water movement Sodium content Runoff Depth to saturated zone Salinity	1.00 1.00 0.40 0.09 0.06	Very limited Slow water movement Sodium content Flooding Depth to saturated zone	1.00 1.00 0.40 0.09

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
16: Bear Lake-----	65	Very limited Depth to saturated zone Flooding Slow water movement Runoff Filtering capacity	1.00  0.60 0.41 0.40 0.01	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  1.00 0.31 0.01
Lago-----	30	Somewhat limited Depth to saturated zone Slow water movement	0.95  0.41	Somewhat limited Depth to saturated zone Flooding Slow water movement	0.95  0.40 0.31
17: Bearhollow-----	30	Very limited Slope Sodium content	1.00 0.32	Very limited Slope Sodium content	1.00 0.32
Brifox-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Slow water movement Slope	1.00  1.00
Iphil-----	20	Very limited Slope Sodium content	1.00 0.82	Very limited Slope Sodium content	1.00 0.82
18: Bergquist-----	60	Very limited Slope Droughty Filtering capacity	1.00 0.94 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.94 0.01
Rubble land-----	15	Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope Droughty Filtering capacity	1.00 0.94 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.94 0.01
Softback-----	30	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.50 0.41	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.99 0.31

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
20: Bergquist-----	55	Very limited Slope Droughty Filtering capacity	1.00 0.94 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.94 0.01
Vitale-----	25	Very limited Slope Large stones on the surface Droughty Depth to bedrock Slow water movement	1.00 1.00 1.00 0.65 0.41	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.65
21: Bothwell-----	80	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
22: Bothwell-----	80	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
23: Bothwell-----	35	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Hades-----	30	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Justesen-----	20	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
24: Bothwell-----	40	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
Thatcher-----	35	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
25: Brifox-----	40	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
25: Huffman-----	35	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
26: Brifox-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
Huffman-----	35	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
27: Brifox-----	55	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01
Niter-----	25	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01
28: Brifox-----	65	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
Niter-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
29: Brifox-----	55	Very limited Slope Slow water movement	1.00 1.00 1.00	Very limited Slow water movement Slope	1.00 1.00 1.00
Niter-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
30: Broadhead-----	30	Very limited Slow water movement Slope	1.00 0.63	Very limited Slow water movement Slope	1.00 0.63
Hades-----	25	Somewhat limited Slope Slow water movement	0.63 0.41	Somewhat limited Slope Slow water movement	0.63 0.31

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
30: Yago-----	25	Very limited Large stones on the surface Slow water movement Cobble content Slope Too acid	1.00 1.00 1.00 0.63 0.03	Very limited Large stones on the surface Slow water movement Cobble content Slope Too acid	1.00 1.00 1.00 0.63 0.14
31: Broadhead-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
Yago-----	35	Very limited Large stones on the surface Slow water movement Slope Cobble content Too acid	1.00 1.00 1.00 1.00 0.03	Very limited Large stones on the surface Slow water movement Slope Cobble content Too acid	1.00 1.00 1.00 1.00 0.14
32: Camelback-----	55	Very limited Slope	1.00	Very limited Slope	1.00
Lonigan-----	25	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.90 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.90 0.01
33: Camelback-----	40	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	20	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Valmar-----	20	Very limited Slope Droughty Depth to bedrock Cobble content Large stones on the surface	1.00 1.00 0.90 0.75 0.08	Very limited Low adsorption Slope Droughty Depth to bedrock Cobble content	1.00 1.00 1.00 0.90 0.75
34: Cedarhill-----	90	Very limited Slope Droughty Filtering capacity	1.00 0.88 0.01	Very limited Slope Droughty Filtering capacity	1.00 0.88 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
35: Cedarhill-----	40	Very limited Slope Droughty Filtering capacity	1.00 0.88 0.01	Very limited Slope Droughty Filtering capacity	1.00 0.88 0.01
Hades-----	25	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Ricrest-----	20	Very limited Slope	1.00	Very limited Slope	1.00
36: Cedarhill-----	35	Very limited Slope Droughty Filtering capacity	1.00 0.88 0.01	Very limited Slope Droughty Filtering capacity	1.00 0.88 0.01
Hondoho-----	30	Very limited Slope Large stones on the surface	1.00 0.82	Very limited Slope Large stones on the surface	1.00 0.82
Ridgecrest-----	20	Very limited Slope Large stones on the surface Droughty Depth to bedrock Cobble content	1.00 1.00 1.00 0.71 0.02	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.71
37: Chesbrook-----	60	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement Runoff	1.00 0.99 0.50 0.41 0.40	Very limited Depth to saturated zone Filtering capacity Too acid Flooding Slow water movement	1.00 0.99 0.99 0.40 0.31
Bear Lake-----	20	Very limited Depth to saturated zone Flooding Slow water movement Runoff Filtering capacity	1.00 0.60 0.41 0.40 0.01	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.31 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
38: Cloudless-----	50	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
Hades-----	40	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
39: Cloudless-----	35	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Hades-----	30	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Howcan-----	20	Very limited Slope Large stones on the surface Filtering capacity	1.00 0.08 0.01	Very limited Slope Large stones on the surface Filtering capacity	1.00 0.08 0.01
40: Copenhagen-----	35	Very limited Depth to bedrock Droughty Slope Runoff Cobble content	1.00 1.00 1.00 0.40 0.08	Very limited Droughty Depth to bedrock Low adsorption Slope Cobble content	1.00 1.00 1.00 1.00 0.08
Lonigan-----	30	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.20 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.20 0.01
Manila-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
41: Delish-----	40	Very limited Depth to saturated zone Salinity Filtering capacity	0.99 0.01 0.01	Very limited Depth to saturated zone Flooding Salinity Filtering capacity	0.99 0.40 0.13 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
41: Cachecan-----	25	Somewhat limited Sodium content Depth to saturated zone Slow water movement	0.68 0.43  0.41	Somewhat limited Sodium content Depth to saturated zone Flooding Slow water movement	0.68 0.43  0.40 0.31
Stinkcreek-----	15	Very limited Filtering capacity Depth to saturated zone Sodium content Slow water movement Runoff	1.00  1.00  1.00 0.41 0.40	Very limited Filtering capacity Depth to saturated zone Sodium content Flooding Slow water movement	1.00  1.00  1.00 0.40 0.31
42: Downata-----	80	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00  1.00 1.00 0.99 0.50	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00  1.00 1.00 0.99 0.99
43: Dranburn-----	45	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99  0.50 0.41	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99  0.99 0.31
Robin-----	35	Very limited Slope	1.00	Very limited Slope	1.00
44: Enochville-----	75	Very limited Depth to saturated zone Flooding Slow water movement Runoff Filtering capacity	1.00  1.00 0.41  0.40 0.01	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  1.00 0.31  0.01
45: Foxol-----	45	Very limited Slope Depth to bedrock Large stones on the surface Droughty Runoff	1.00 1.00 1.00  1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Large stones on the surface Slope	1.00 1.00 1.00 1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45: Vitale-----	30	Very limited Slope Large stones on the surface Droughty Depth to bedrock Slow water movement	1.00 1.00 1.00 0.65 0.41	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.65
46: Hades-----	35	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Camelback-----	20	Very limited Slope	1.00	Very limited Slope	1.00
Hondoho-----	20	Very limited Slope Large stones on the surface	1.00 0.82	Very limited Slope Large stones on the surface	1.00 0.82
47: Hades-----	25	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Lanoak-----	25	Very limited Slope	1.00	Very limited Slope	1.00
Camelback-----	25	Very limited Slope	1.00	Very limited Slope	1.00
48: Haploxerolls-----	45	Very limited Slope Droughty	1.00 0.99	Very limited Slope Droughty	1.00 0.99
Xerorthents-----	30	Very limited Slope Depth to bedrock Droughty Runoff	1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00
49: Hendricks-----	90	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
50: Holmes-----	90	Very limited Filtering capacity Dense layer Droughty	1.00 1.00 0.75	Very limited Filtering capacity Droughty Flooding	1.00 0.75 0.40

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
51: Hondee-----	85	Very limited Filtering capacity Droughty	1.00 0.23	Very limited Filtering capacity Droughty	1.00 0.23
52: Hondee-----	75	Very limited Filtering capacity Droughty Slope	1.00 0.23 0.01	Very limited Filtering capacity Droughty Slope	1.00 0.23 0.01
53: Hondoho-----	50	Somewhat limited Large stones on the surface Slope	0.82 0.01	Somewhat limited Large stones on the surface Slope	0.82 0.01
Hades-----	30	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
54: Hondoho-----	50	Somewhat limited Large stones on the surface Slope	0.82 0.63	Somewhat limited Large stones on the surface Slope	0.82 0.63
Ricrest-----	40	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
55: Hondoho-----	35	Very limited Slope Large stones on the surface	1.00 0.82	Very limited Slope Large stones on the surface	1.00 0.82
Sprollo-----	30	Very limited Slope Droughty Depth to bedrock	1.00 0.19 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock	1.00 1.00 0.19 0.01
Hades-----	20	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
56: Hondoho-----	45	Very limited Slope Large stones on the surface	1.00 0.82	Very limited Slope Large stones on the surface	1.00 0.82

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
56: Vitale-----	30	Very limited Slope Large stones on the surface Droughty Depth to bedrock Slow water movement	1.00 1.00 1.00 0.65 0.41	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.65
57: Huffman-----	80	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
58: Huffman-----	80	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
59: Huffman-----	45	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
Dirtyhead-----	30	Very limited Droughty Depth to bedrock Slope	1.00 0.01 0.01	Very limited Low adsorption Droughty Depth to bedrock Slope	1.00 1.00 0.01 0.01
60: Huffman-----	35	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
Harroun-----	30	Very limited Depth to cemented pan Droughty Runoff Slope	1.00 1.00 0.40 0.01	Very limited Droughty Depth to cemented pan Low adsorption Slope	1.00 1.00 1.00 0.01
Lanoak-----	25	Not limited		Not limited	
61: Huffman-----	45	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
Wursten-----	35	Somewhat limited Sodium content Slope	0.02 0.01	Somewhat limited Sodium content Slope	0.02 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
62: Iphil-----	60	Somewhat limited Slope Sodium content	0.96 0.82	Somewhat limited Slope Sodium content	0.96 0.82
Lonigan-----	20	Somewhat limited Droughty Slope Depth to bedrock Filtering capacity	0.99 0.96 0.90 0.01	Very limited Low adsorption Droughty Slope Depth to bedrock Filtering capacity	1.00 0.99 0.96 0.90 0.01
63: Ireland-----	50	Very limited Slope Droughty Depth to bedrock Cobble content	1.00 1.00 0.95 0.59	Very limited Droughty Low adsorption Slope Depth to bedrock Cobble content	1.00 1.00 1.00 0.95 0.59
Polumar-----	25	Very limited Slope Droughty	1.00 0.57	Very limited Low adsorption Slope Droughty	1.00 1.00 0.57
64: Kabear-----	50	Somewhat limited Filtering capacity Slope	0.01 0.01	Somewhat limited Filtering capacity Slope	0.01 0.01
Staberg-----	25	Somewhat limited Droughty Depth to bedrock Filtering capacity Slope	0.18 0.01 0.01 0.01	Very limited Low adsorption Droughty Depth to bedrock Filtering capacity Slope	1.00 0.18 0.01 0.01 0.01 0.01
Copenhagen-----	15	Very limited Depth to bedrock Droughty Runoff Cobble content Slope	1.00 1.00 0.40 0.08 0.01	Very limited Droughty Depth to bedrock Low adsorption Cobble content Slope	1.00 1.00 1.00 0.08 0.01
65: Kabear-----	50	Very limited Slope Filtering capacity	1.00 0.01	Very limited Slope Filtering capacity	1.00 0.01
Staberg-----	25	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.18 0.01 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.18 0.01 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
65: Copenhagen-----	15	Very limited Depth to bedrock Droughty Slope Runoff Cobble content	1.00 1.00 1.00 0.40 0.08	Very limited Droughty Depth to bedrock Low adsorption Slope Cobble content	1.00 1.00 1.00 1.00 1.00 0.08
66: Kearns-----	80	Not limited		Not limited	
67: Kearnsar-----	60	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
Battle Creek-----	25	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
68: Kidman-----	90	Not limited		Not limited	
69: Kidman-----	85	Not limited		Not limited	
70: Kidman-----	85	Very limited Slope	1.00	Very limited Slope	1.00
71: Kidman, wet-----	85	Not limited		Not limited	
72: Kidman-----	45	Not limited		Not limited	
Sterling-----	30	Somewhat limited Droughty	0.01	Somewhat limited Droughty	0.01
73: Lando-----	75	Very limited Slow water movement Depth to saturated zone Sodium content	1.00 0.43 0.02	Very limited Slow water movement Depth to saturated zone Sodium content	1.00 0.43 0.02
74: Lanoak-----	75	Not limited		Not limited	
75: Lanoak-----	75	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
76: Lanoak-----	45	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
76: Broadhead-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
77: Lanoak-----	35	Very limited Slope	1.00	Very limited Slope	1.00
Broadhead-----	30	Very limited Slope Slow water movement Runoff	1.00 1.00 0.40	Very limited Slope Slow water movement	1.00 1.00
Hades-----	15	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
78: Lanoak-----	40	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84
Hades-----	35	Somewhat limited Slope Slow water movement	0.84 0.41	Somewhat limited Slope Slow water movement	0.84 0.31
79: Lanoak-----	60	Very limited Slope	1.00	Very limited Slope	1.00
Thatcher-----	25	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
80: Layton-----	85	Very limited Filtering capacity Droughty	1.00 0.16	Very limited Filtering capacity Droughty	1.00 0.16
81: Layton-----	80	Very limited Filtering capacity Droughty	1.00 0.16	Very limited Filtering capacity Droughty	1.00 0.16
82: Lizdale-----	80	Very limited Slope Large stones on the surface Filtering capacity	1.00 1.00 0.01	Very limited Large stones on the surface Slope Filtering capacity	1.00 1.00 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
83: Lizdale-----	55	Very limited Large stones on the surface Slope Filtering capacity	1.00  1.00 0.01	Very limited Large stones on the surface Slope Filtering capacity	1.00  1.00 0.01
Searla-----	35	Very limited Slope Slow water movement Droughty	1.00 0.41 0.03	Very limited Slope Slow water movement Droughty	1.00 0.31 0.03
84: Logan-----	90	Very limited Depth to saturated zone Slow water movement Filtering capacity Too acid Runoff	1.00 1.00 0.99 0.50 0.40	Very limited Depth to saturated zone Slow water movement Filtering capacity Too acid Flooding	1.00 1.00 0.99 0.99 0.40
85: Lonigan-----	40	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.20 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.20 0.01
Lizdale-----	40	Very limited Large stones on the surface Slope Filtering capacity	1.00 1.00 0.01	Very limited Large stones on the surface Slope Filtering capacity	1.00 1.00 0.01
86: Lonigan-----	45	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.90 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.90 0.01
Ricrest-----	30	Very limited Slope	1.00	Very limited Slope	1.00
87: Manila-----	85	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
88: Manila-----	80	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01
89: Manila-----	85	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
90: Manila-----	50	Very limited Slow water movement Slope	1.00 0.37	Very limited Slow water movement Slope	1.00 0.37
Bancroft-----	30	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37
91: Manila-----	50	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01
Broadhead-----	25	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01
92: Manila-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
Broadhead-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
93: Manila-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
Lonigan-----	30	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.20 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.20 0.01



# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
94: Manila-----	55	Very limited Slow water movement Slope	1.00  0.84	Very limited Slow water movement Slope	1.00  0.84
Yeates Hollow-----	30	Somewhat limited Slope Slow water movement Cobble content	0.84 0.74 0.01	Somewhat limited Slope Slow water movement Cobble content	0.84 0.60 0.01
95: Maplecreek-----	95	Somewhat limited Depth to saturated zone Filtering capacity	0.68  0.01	Somewhat limited Depth to saturated zone Flooding Filtering capacity	0.68  0.40 0.01
96: Maplecreek-----	45	Somewhat limited Depth to saturated zone Filtering capacity	0.68  0.01	Somewhat limited Depth to saturated zone Flooding Filtering capacity	0.68  0.40 0.01
Layton-----	35	Very limited Filtering capacity Droughty	1.00  0.16	Very limited Filtering capacity Droughty	1.00  0.16
97: Merkley-----	45	Very limited Filtering capacity Sodium content	1.00  0.02	Very limited Filtering capacity Sodium content	1.00  0.02
Lago-----	20	Somewhat limited Depth to saturated zone Slow water movement	0.95  0.41	Somewhat limited Depth to saturated zone Flooding Slow water movement	0.95  0.40 0.31
Bear Lake-----	15	Very limited Depth to saturated zone Flooding Slow water movement Runoff Filtering capacity	1.00  0.60 0.41  0.40 0.01	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  1.00 0.31  0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
98: Moonlight-----	40	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.50	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.99
Camelback-----	35	Very limited Slope	1.00	Very limited Slope	1.00
99: Niter-----	60	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
Brifox-----	20	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
100: Northwater-----	35	Very limited Slope Droughty Filtering capacity	1.00 0.90 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.90 0.01
Foxol-----	25	Very limited Slope Depth to bedrock Large stones on the surface Droughty Runoff	1.00 1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Large stones on the surface Slope	1.00 1.00 1.00 1.00 1.00
Vitale-----	20	Very limited Slope Large stones on the surface Droughty Depth to bedrock Slow water movement	1.00 1.00 1.00 0.65 0.41	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.65
101: Northwater-----	65	Very limited Slope Droughty Filtering capacity	1.00 0.90 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.90 0.01
Povey-----	25	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
102: Northwater-----	65	Very limited Slope Droughty Filtering capacity	1.00 0.90 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.90 0.01
Povey-----	15	Very limited Slope	1.00	Very limited Slope	1.00
103: Nyman-----	50	Very limited Slope Filtering capacity Too acid Droughty Depth to bedrock	1.00 0.99 0.50 0.44 0.05	Very limited Low adsorption Slope Filtering capacity Too acid Droughty	1.00 1.00 0.99 0.99 0.44
Lonigan-----	20	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.90 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.90 0.01
Copenhagen-----	15	Very limited Slope Depth to bedrock Droughty Runoff Cobble content	1.00 1.00 1.00 0.40 0.08	Very limited Droughty Depth to bedrock Low adsorption Slope Cobble content	1.00 1.00 1.00 1.00 0.08
104: Oxford-----	45	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
Banida-----	35	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
105: Oxford-----	45	Very limited Slow water movement Runoff Slope	1.00 0.40 0.01	Very limited Slow water movement Slope	1.00 0.01
Banida-----	35	Very limited Slow water movement Runoff Slope	1.00 0.40 0.01	Very limited Slow water movement Slope	1.00 0.01

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
106: Oxford-----	50	Very limited Slow water movement Slope Runoff	1.00 1.00 0.40	Very limited Slow water movement Slope	1.00 1.00
Banida-----	35	Very limited Slow water movement Slope Runoff	1.00 1.00 0.40	Very limited Slow water movement Slope	1.00 1.00
107: Oxford-----	65	Very limited Slope Slow water movement Runoff	1.00 1.00 0.40	Very limited Slow water movement Slope	1.00 1.00
Gullied land-----	15	Not rated		Not rated	
108: Parkay-----	45	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.50 0.41	Very limited Low adsorption Slope Filtering capacity Too acid Slow water movement	1.00 1.00 0.99 0.99 0.31
Povey-----	30	Very limited Slope	1.00	Very limited Slope	1.00
109: Parleys-----	85	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
110: Parleys-----	85	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
111: Parleys, wet-----	90	Somewhat limited Slow water movement	0.41	Somewhat limited Flooding Slow water movement	0.40 0.31
112: Pavohroo-----	30	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.50	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.99

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
112: Sedgway-----	30	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.50 0.41	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.99 0.31
Toponce-----	20	Very limited Slope Slow water movement Too acid	1.00 1.00 0.03	Very limited Slope Slow water movement Too acid	1.00 1.00 0.14
113: Picabo-----	45	Very limited Sodium content Depth to saturated zone	1.00 0.43	Very limited Sodium content Depth to saturated zone Flooding	1.00 0.43 0.40
Thatcherflats-----	30	Very limited Slow water movement Sodium content Runoff Depth to saturated zone Salinity	1.00 1.00 0.40 0.09 0.06	Very limited Slow water movement Sodium content Flooding Depth to saturated zone	1.00 1.00 0.40 0.09
114: Pits, gravel-----	100	Not rated		Not rated	
115: Pollynot-----	75	Very limited Filtering capacity Slow water movement Slope	1.00 0.41 0.01	Very limited Filtering capacity Slow water movement Slope	1.00 0.31 0.01
116: Pollynot-----	75	Very limited Filtering capacity Slow water movement	1.00 0.41	Very limited Filtering capacity Slow water movement	1.00 0.31
117: Pollynot-----	75	Very limited Filtering capacity Slow water movement	1.00 0.41	Very limited Filtering capacity Slow water movement	1.00 0.31

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
118: Pollynot-----	75	Very limited Filtering capacity Slope Slow water movement	1.00 0.63 0.41	Very limited Filtering capacity Slope Slow water movement	1.00 0.63 0.31
119: Polumar-----	45	Very limited Slope Droughty	1.00 0.57	Very limited Low adsorption Slope Droughty	1.00 1.00 0.57
Ireland-----	30	Very limited Slope Droughty Depth to bedrock Cobble content	1.00 1.00 0.95 0.59	Very limited Droughty Low adsorption Slope Depth to bedrock Cobble content	1.00 1.00 1.00 0.95 0.59
120: Polumar-----	30	Very limited Slope Droughty	1.00 0.57	Very limited Low adsorption Slope Droughty	1.00 1.00 0.57
Sprollo-----	30	Very limited Slope Droughty Depth to bedrock	1.00 0.19 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock	1.00 1.00 0.19 0.01
Ireland-----	20	Very limited Slope Droughty Depth to bedrock Cobble content	1.00 1.00 0.95 0.59	Very limited Droughty Low adsorption Slope Depth to bedrock Cobble content	1.00 1.00 1.00 0.95 0.59
121: Povey-----	35	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	30	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
Hondoho-----	15	Very limited Slope Large stones on the surface	1.00 0.82	Very limited Slope Large stones on the surface	1.00 0.82
122: Povey-----	45	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
122: Parkay-----	30	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.50 0.41	Very limited Low adsorption Slope Filtering capacity Too acid Slow water movement	1.00 1.00 0.99 0.99 0.31
123: Preston-----	90	Very limited Filtering capacity Leaching Droughty	1.00 0.45 0.23	Very limited Filtering capacity Droughty	1.00 0.23
124: Preston-----	90	Very limited Filtering capacity Leaching Droughty	1.00 0.45 0.23	Very limited Filtering capacity Droughty	1.00 0.23
125: Preston-----	85	Very limited Filtering capacity Slope Leaching Droughty	1.00 1.00 0.45 0.23	Very limited Filtering capacity Slope Droughty	1.00 1.00 0.23
126: Preston-----	55	Very limited Slope Filtering capacity Leaching Droughty	1.00 1.00 0.45 0.23	Very limited Filtering capacity Slope Droughty	1.00 1.00 0.23
Xerorthents-----	20	Very limited Slope Depth to bedrock Droughty Runoff	1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00
127: Ricrest-----	90	Somewhat limited Slope	0.01	Somewhat limited Slope	0.01
128: Sanyon-----	30	Very limited Slope Depth to bedrock Droughty Runoff	1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
128: Staberg-----	30	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.18 0.01 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.18 0.01 0.01
Kabear-----	20	Very limited Slope Filtering capacity	1.00 0.01	Very limited Slope Filtering capacity	1.00 0.01
129: Smidale-----	85	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.50	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.99
130: Smidale-----	45	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.50	Very limited Slope Filtering capacity Too acid	1.00 0.99 0.99
Staberg-----	40	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.18 0.01 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.18 0.01 0.01
131: Sprollow-----	45	Very limited Slope Droughty Depth to bedrock	1.00 0.19 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock	1.00 1.00 0.19 0.01
Hondoho-----	35	Very limited Slope Large stones on the surface	1.00 0.82	Very limited Slope Large stones on the surface	1.00 0.82
132: Sprollow-----	40	Very limited Slope Droughty Depth to bedrock	1.00 0.19 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock	1.00 1.00 0.19 0.01
Hymas-----	35	Very limited Slope Depth to bedrock Droughty Runoff	1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
133: Sterling-----	85	Somewhat limited Droughty	0.01	Somewhat limited Droughty	0.01
134: Sterling-----	85	Somewhat limited Droughty	0.01	Somewhat limited Droughty	0.01
135: Sterling-----	90	Very limited Slope Droughty	1.00 0.01	Very limited Slope Droughty	1.00 0.01
136: Sterling-----	85	Very limited Slope Droughty	1.00 0.01	Very limited Slope Droughty	1.00 0.01
137: Sterling-----	50	Somewhat limited Droughty	0.01	Somewhat limited Droughty	0.01
Parleys-----	30	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
138: Thatcher-----	45	Somewhat limited Slope Slow water movement	0.84 0.41	Somewhat limited Slope Slow water movement	0.84 0.31
Bearhollow-----	35	Somewhat limited Slope Sodium content	0.84 0.32	Somewhat limited Slope Sodium content	0.84 0.32
139: Toponce-----	50	Very limited Slow water movement Slope Too acid	1.00 1.00 0.03	Very limited Slow water movement Slope Too acid	1.00 1.00 0.14
Broadhead-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
140: Trenton-----	50	Very limited Slow water movement Depth to saturated zone	1.00 0.43	Very limited Slow water movement Depth to saturated zone	1.00 0.43
Battle Creek-----	40	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
141: Trenton, cool-----	50	Very limited Slow water movement Depth to saturated zone	1.00 0.43	Very limited Slow water movement Depth to saturated zone	1.00 0.43
Battle Creek, cool--	40	Very limited Slow water movement Runoff	1.00 0.40	Very limited Slow water movement	1.00
142: Trenton-----	45	Very limited Slow water movement Depth to saturated zone	1.00 0.43	Very limited Slow water movement Depth to saturated zone	1.00 0.43
Parleys-----	35	Somewhat limited Slow water movement	0.41	Somewhat limited Flooding Slow water movement	0.40 0.31
143: Valmar-----	40	Very limited Slope Droughty Depth to bedrock Cobble content Large stones on the surface	1.00 1.00 0.90 0.75 0.08	Very limited Low adsorption Slope Droughty Depth to bedrock Cobble content	1.00 1.00 1.00 0.90 0.75
Camelback-----	25	Very limited Slope	1.00	Very limited Slope	1.00
Hades-----	20	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
144: Vitale-----	40	Very limited Slope Large stones on the surface Droughty Depth to bedrock Slow water movement	1.00 1.00 1.00 0.65 0.41	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.65
Bergquist-----	25	Very limited Slope Droughty Filtering capacity	1.00 0.94 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.94 0.01
Rock outcrop-----	15	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
145: Vitale-----	35	Very limited Large stones on the surface Droughty Slope Depth to bedrock Cobble content	1.00 1.00 1.00 0.99 0.04	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.99
Yeates Hollow-----	25	Very limited Slope Slow water movement Cobble content	1.00 0.74 0.01	Very limited Slope Slow water movement Cobble content	1.00 0.60 0.01
Northwater-----	15	Very limited Slope Droughty Filtering capacity	1.00 0.90 0.01	Very limited Low adsorption Slope Droughty Filtering capacity	1.00 1.00 0.90 0.01
146: Welby-----	90	Very limited Sodium content Filtering capacity	0.99 0.01	Very limited Sodium content Filtering capacity	0.99 0.01
147: Welby-----	90	Very limited Sodium content Filtering capacity	0.99 0.01	Very limited Sodium content Filtering capacity	0.99 0.01
148: Welby, wet-----	85	Somewhat limited Sodium content Filtering capacity	0.08 0.01	Somewhat limited Sodium content Filtering capacity	0.08 0.01
149: Collinston-----	40	Somewhat limited Slow water movement Slope	0.41 0.01	Somewhat limited Slow water movement Slope	0.31 0.01
Wheelon-----	40	Somewhat limited Sodium content Slow water movement Slope	0.50 0.41 0.01	Somewhat limited Sodium content Slow water movement Slope	0.50 0.31 0.01
150: Wheelon-----	40	Very limited Slope Sodium content Slow water movement	1.00 0.50 0.41	Very limited Slope Sodium content Slow water movement	1.00 0.50 0.31

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
150: Collinston-----	35	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
151: Wheelon-----	45	Very limited Slope Sodium content Slow water movement	1.00 0.50 0.41	Very limited Slope Sodium content Slow water movement	1.00 0.50 0.31
Collinston-----	30	Very limited Slope Slow water movement	1.00 0.41	Very limited Slope Slow water movement	1.00 0.31
152: Windernot-----	40	Very limited Filtering capacity Droughty	1.00 0.99	Very limited Filtering capacity Droughty Flooding	1.00 0.99 0.40
Lewnot-----	20	Very limited Filtering capacity Depth to saturated zone	1.00 0.68	Very limited Filtering capacity Depth to saturated zone Flooding	1.00 0.68 0.40
Stinkcreek-----	15	Very limited Filtering capacity Depth to saturated zone Sodium content Slow water movement Runoff	1.00 1.00 1.00 0.41 0.40	Very limited Filtering capacity Depth to saturated zone Sodium content Flooding Slow water movement	1.00 1.00 1.00 0.40 0.31
153: Winn-----	90	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Depth to saturated zone Flooding	0.43 0.40
154: Winwell-----	80	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
155: Winwell-----	45	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
155: Collinston-----	35	Somewhat limited Slow water movement	0.41	Somewhat limited Slow water movement	0.31
156: Wormcreek-----	50	Very limited Slope Slow water movement Droughty	1.00 0.41 0.12	Very limited Low adsorption Slope Slow water movement Droughty	1.00 1.00 0.31 0.12
Copenhagen-----	30	Very limited Slope Depth to bedrock Droughty Runoff Cobble content	1.00 1.00 1.00 0.40 0.08	Very limited Droughty Depth to bedrock Low adsorption Slope Cobble content	1.00 1.00 1.00 1.00 0.08
157: Wormcreek-----	45	Very limited Slope Slow water movement Droughty	1.00 0.41 0.12	Very limited Low adsorption Slope Slow water movement Droughty	1.00 1.00 0.31 0.12
Lonigan-----	35	Very limited Slope Droughty Depth to bedrock Filtering capacity	1.00 0.99 0.90 0.01	Very limited Low adsorption Slope Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.90 0.01
158: Wursten-----	45	Very limited Slope Sodium content	1.00 0.02	Very limited Slope Sodium content	1.00 0.02
Dirtyhead-----	35	Very limited Droughty Slope Depth to bedrock	1.00 1.00 0.01	Very limited Low adsorption Droughty Slope Depth to bedrock	1.00 1.00 1.00 0.01
159: Xerochrepts-----	30	Very limited Slope	1.00	Very limited Slope	1.00
Wormcreek-----	25	Very limited Slope Slow water movement Droughty	1.00 0.41 0.12	Very limited Low adsorption Slope Slow water movement Droughty	1.00 1.00 0.31 0.12

# Soil Survey of Franklin County Area, Idaho

Table 14.--Agricultural Waste Management (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Application of sewage sludge	
		Rating class and limiting features	Value	Rating class and limiting features	Value
159: Xerorthents-----	20	Very limited Slope Depth to bedrock Droughty Runoff	1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00
160: Xerorthents-----	75	Very limited Slope Depth to bedrock Droughty Runoff	1.00 1.00 1.00 0.40	Very limited Droughty Depth to bedrock Low adsorption Slope	1.00 1.00 1.00 1.00
161: Yeates Hollow-----	85	Very limited Slope Slow water movement Cobble content	1.00 0.74 0.01	Very limited Slope Slow water movement Cobble content	1.00 0.60 0.01
162: Yeates Hollow-----	40	Very limited Slope Slow water movement Cobble content	1.00 0.74 0.01	Very limited Slope Slow water movement Cobble content	1.00 0.60 0.01
Manila-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Slope	1.00 1.00
Softback-----	15	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.50 0.41	Very limited Slope Filtering capacity Too acid Slow water movement	1.00 0.99 0.99 0.31
163: Yeates Hollow-----	45	Very limited Slope Slow water movement Cobble content	1.00 0.74 0.01	Very limited Slope Slow water movement Cobble content	1.00 0.60 0.01
Vitale-----	35	Very limited Slope Large stones on the surface Droughty Depth to bedrock Slow water movement	1.00 1.00 1.00 0.80 0.41	Very limited Droughty Low adsorption Large stones on the surface Slope Depth to bedrock	1.00 1.00 1.00 1.00 0.80
164: Water-----	100	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Sodium content Slow water movement Salinity Depth to saturated zone	1.00 1.00  1.00 0.86	Very limited Sodium content Salinity Depth to saturated zone Flooding	1.00 1.00 0.86 0.40
2: Ant Flat-----	85	Very limited Slow water movement	1.00	Not limited	
3: Ant Flat-----	85	Very limited Slow water movement	1.00	Not limited	
4: Ant Flat-----	90	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00  0.10	Somewhat limited Too steep for surface application	0.22
5: Ant Flat-----	65	Very limited Slow water movement Too steep for surface application	1.00 0.68	Not limited	
Oxford-----	25	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00  0.22	Somewhat limited Too steep for surface application	0.50

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
6: Ant Flat-----	50	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application	1.00
Oxford-----	35	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application	1.00
7: Arbone-----	80	Somewhat limited Filtering capacity	0.01	Very limited Seepage	1.00
8: Banida-----	85	Very limited Slow water movement	1.00	Not limited	
9: Banida-----	80	Very limited Slow water movement	1.00	Not limited	
10: Battle Creek-----	85	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
11: Battle Creek-----	85	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
12: Battle Creek-----	95	Very limited Slow water movement Too steep for surface application	1.00  0.68	Somewhat limited Seepage	0.69



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
13: Bear Lake-----	40	Very limited Depth to saturated zone Ponding Flooding Slow water movement Filtering capacity	1.00  1.00 0.60 0.31  0.01	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00  1.00
Chesbrook-----	30	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement	1.00  0.99  0.99 0.31	Very limited Seepage Depth to saturated zone Too acid Flooding	1.00 1.00  0.99 0.40
Picabo-----	15	Very limited Sodium content Depth to saturated zone	1.00 0.43	Very limited Seepage Sodium content Depth to saturated zone Flooding	1.00 1.00 0.43  0.40
14: Bear Lake-----	50	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  1.00 0.31  0.01	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
Downata-----	35	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00  1.00 1.00 0.99 0.99	Very limited Flooding Seepage Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 1.00 0.99
15: Bear Lake-----	50	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  1.00 0.31  0.01	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
15: Downata-----	25	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00  1.00 1.00 0.99 0.99	Very limited Flooding Seepage Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 1.00 0.99
Thatcherflats-----	20	Very limited Slow water movement Sodium content Depth to saturated zone	1.00 1.00 0.09	Very limited Sodium content Seepage Flooding Depth to saturated zone	1.00 1.00 0.40 0.09
16: Bear Lake-----	65	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 0.60 0.31 0.01	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
Lago-----	30	Somewhat limited Depth to saturated zone Slow water movement	0.95 0.31	Very limited Seepage Depth to saturated zone Flooding	1.00 0.95 0.40
17: Bearhollow-----	30	Very limited Too steep for surface application Too steep for sprinkler application Sodium content	1.00 1.00 1.00 0.32	Very limited Seepage Too steep for surface application Sodium content	1.00 1.00 0.32
Brifox-----	25	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00	Very limited Too steep for surface application	1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
17: Iphil-----	20	Very limited Too steep for surface application Too steep for sprinkler application Sodium content	1.00  1.00  0.82	Very limited Seepage Too steep for surface application Sodium content	1.00 1.00  0.82
18: Bergquist-----	60	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.94 0.01	Very limited Seepage Too steep for surface application Depth to bedrock Cobble content	1.00 1.00  0.14 0.11
Rubble land-----	15	Not rated		Not rated	
19: Bergquist-----	45	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.94 0.01	Very limited Seepage Too steep for surface application Depth to bedrock Cobble content	1.00 1.00  0.14 0.11
Softback-----	30	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Slow water movement	1.00  1.00  0.99 0.99 0.31	Very limited Seepage Too steep for surface application Too acid Stone content Cobble content	1.00 1.00  0.99 0.64 0.14
20: Bergquist-----	55	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.94 0.01	Very limited Seepage Too steep for surface application Depth to bedrock Cobble content	1.00 1.00  0.14 0.11

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
20: Vitale-----	25	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	 1.00 1.00 1.00 1.00 1.00 0.65	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	 1.00 1.00 1.00 0.99 0.55
21: Bothwell-----	80	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	 1.00 0.31 0.10	Very limited Seepage Too steep for surface application	 1.00 0.22
22: Bothwell-----	80	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	 1.00 1.00 0.31	Very limited Seepage Too steep for surface application	 1.00 1.00
23: Bothwell-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	 1.00 1.00 0.31	Very limited Seepage Too steep for surface application	 1.00 1.00
Hades-----	30	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	 1.00 1.00 0.31	Very limited Seepage Too steep for surface application	 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
23: Justesen-----	20	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
24: Bothwell-----	40	Somewhat limited Too steep for surface application Slow water movement	0.68  0.31	Very limited Seepage	1.00
Thatcher-----	35	Somewhat limited Too steep for surface application Slow water movement	0.68  0.31	Very limited Seepage	1.00
25: Brifox-----	40	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  0.10	Somewhat limited Too steep for surface application	0.22
Huffman-----	35	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  0.31  0.10	Very limited Seepage Too steep for surface application	1.00 0.22
26: Brifox-----	40	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application	1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
26: Huffman-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
27: Brifox-----	55	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  0.10	Somewhat limited Too steep for surface application	0.22
Niter-----	25	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  0.10	Somewhat limited Seepage Too steep for surface application	0.69 0.22
28: Brifox-----	65	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application	1.00
Niter-----	20	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application Seepage	1.00 0.69

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
29: Brifox-----	55	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00	Very limited Too steep for surface application	1.00
Niter-----	25	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00	Very limited Too steep for surface application Seepage	1.00 0.69
30: Broadhead-----	30	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 0.78	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	25	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00 0.78 0.31	Very limited Seepage Too steep for surface application	1.00 1.00
Yago-----	25	Very limited Large stones on the surface Slow water movement Cobble content Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00 0.78	Very limited Stone content Too steep for surface application Cobble content Seepage Too acid	1.00 1.00 0.70 0.69 0.14

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
31: Broadhead-----	40	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  1.00	Very limited Seepage Too steep for surface application	1.00  1.00
Yago-----	35	Very limited Large stones on the surface Too steep for surface application Slow water movement Too steep for sprinkler application Cobble content	1.00  1.00  1.00  1.00  1.00	Very limited Too steep for surface application Stone content Cobble content Seepage Too acid	1.00   1.00 0.70 0.69 0.14
32: Camelback-----	55	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00  1.00
Lonigan-----	25	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.99 0.90 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00  1.00  1.00
33: Camelback-----	40	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00  1.00



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
33: Hades-----	20	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
Valmar-----	20	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Cobble content	1.00  1.00  1.00 0.90 0.75	Very limited Seepage Depth to bedrock Too steep for surface application Stone content	1.00 1.00 1.00 1.00
34: Cedarhill-----	90	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.88 0.01	Very limited Seepage Too steep for surface application	1.00 1.00
35: Cedarhill-----	40	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.88 0.01	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	25	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
35: Ricrest-----	20	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
36: Cedarhill-----	35	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.88 0.01	Very limited Seepage Too steep for surface application	1.00 1.00
Hondoho-----	30	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface	1.00  1.00  0.82	Very limited Seepage Too steep for surface application	1.00 1.00
Ridgecrest-----	20	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	1.00 1.00 1.00 1.00 0.71	Very limited Seepage Depth to bedrock Too steep for surface application Stone content	1.00 1.00 1.00 1.00
37: Chesbrook-----	60	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement	1.00 0.99 0.99 0.31	Very limited Seepage Depth to saturated zone Too acid Flooding	1.00 1.00 0.99 0.40

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
37: Bear Lake-----	20	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  0.60 0.31  0.01	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
38: Cloudless-----	50	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  0.31  0.10	Very limited Seepage Too steep for surface application	1.00 0.22
Hades-----	40	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  0.31  0.10	Very limited Seepage Too steep for surface application	1.00 0.22
39: Cloudless-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	30	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
39: Howcan-----	20	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface Filtering capacity	1.00  1.00  0.08 0.01	Very limited Seepage Too steep for surface application Stone content Cobble content	1.00 1.00  0.04 0.01
40: Copenhagen-----	35	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application Cobble content	1.00 1.00 1.00  1.00  0.08	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
Lonigan-----	30	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.99 0.20 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
Manila-----	20	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application Seepage	1.00  0.69
41: Delish-----	40	Very limited Depth to saturated zone Salinity Filtering capacity	0.99  0.13 0.01	Very limited Seepage Depth to saturated zone Flooding	1.00 0.99 0.40

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
41: Cachecan-----	25	Somewhat limited Sodium content Depth to saturated zone Slow water movement	0.68 0.43  0.31	Very limited Seepage Sodium content Depth to saturated zone Flooding	1.00 0.68 0.43 0.40
Stinkcreek-----	15	Very limited Filtering capacity Depth to saturated zone Sodium content Slow water movement Droughty	1.00 1.00 1.00 0.31 0.14	Very limited Depth to saturated zone Sodium content Seepage Flooding	1.00 1.00 0.69 0.40
42: Downata-----	80	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99	Very limited Flooding Seepage Depth to saturated zone Ponding Too acid	1.00 1.00 1.00 1.00 0.99
43: Dranburn-----	45	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Slow water movement	1.00 1.00 0.99 0.99 0.31	Very limited Seepage Too steep for surface application Too acid	1.00 1.00 0.99
Robin-----	35	Very limited Too steep for surface application Too steep for sprinkler application	1.00 1.00	Very limited Seepage Too steep for surface application	1.00 1.00
44: Enochville-----	75	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.31 0.01	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45: Foxol-----	45	Very limited Droughty Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00 1.00	Very limited Seepage Depth to bedrock Too steep for surface application Stone content	1.00 1.00 1.00 1.00
Vitale-----	30	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	1.00 1.00 1.00 1.00 1.00 0.65	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	1.00 1.00 1.00 0.99 0.55
46: Hades-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00 1.00 1.00 0.31	Very limited Seepage Too steep for surface application	1.00 1.00
Camelback-----	20	Very limited Too steep for surface application Too steep for sprinkler application	1.00 1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Hondoho-----	20	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface	1.00 1.00 0.82	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
47: Hades-----	25	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
Lanoak-----	25	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Camelback-----	25	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
48: Haploxerolls-----	45	Very limited Too steep for surface application Too steep for sprinkler application Droughty	1.00  1.00  0.99	Very limited Seepage Too steep for surface application	1.00 1.00
Xerorthents-----	30	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Seepage Cobble content	1.00 1.00 1.00 0.01
49: Hendricks-----	90	Very limited Too steep for surface application Slow water movement Too steep for surface application	1.00  0.31  0.10	Very limited Seepage Too steep for surface application	1.00 0.22

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
50: Holmes-----	90	Very limited Filtering capacity Droughty	1.00 0.75	Very limited Seepage Flooding Stone content Cobble content	1.00 0.40 0.10 0.01
51: Hondee-----	85	Very limited Filtering capacity Droughty	1.00 0.23	Very limited Seepage	1.00
52: Hondee-----	75	Very limited Filtering capacity Too steep for surface application Droughty Too steep for sprinkler application	1.00 1.00 0.23 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
53: Hondoho-----	50	Very limited Too steep for surface application Large stones on the surface Too steep for sprinkler application	1.00 0.82 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
Hades-----	30	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00 0.31 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
54: Hondoho-----	50	Very limited Too steep for surface application Large stones on the surface Too steep for sprinkler application	1.00 0.82 0.78	Very limited Seepage Too steep for surface application	1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
54: Ricrest-----	40	Very limited Too steep for surface application Too steep for sprinkler application	1.00   0.10	Very limited Seepage Too steep for surface application	1.00  0.22
55: Hondoho-----	35	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface	1.00   1.00  0.82	Very limited Seepage Too steep for surface application	1.00  1.00
Spollow-----	30	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock	1.00  1.00  0.19 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content Stone content	1.00 1.00 1.00 0.62 0.11
Hades-----	20	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
56: Hondoho-----	45	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface	1.00  1.00  0.82	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
56: Vitale-----	30	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	1.00 1.00 1.00 1.00 0.65	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	1.00 1.00 1.00 0.99 0.55
57: Huffman-----	80	Somewhat limited Slow water movement	0.31	Very limited Seepage	1.00
58: Huffman-----	80	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00 0.31 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
59: Huffman-----	45	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00 0.31 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
Dirtyhead-----	30	Very limited Droughty Too steep for surface application Too steep for sprinkler application Depth to bedrock	1.00 1.00 0.10 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 0.22
60: Huffman-----	35	Somewhat limited Too steep for surface application Slow water movement	0.68 0.31	Very limited Seepage	1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
60: Harroun-----	30	Very limited Droughty Depth to cemented pan Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 0.10	Very limited Seepage Depth to cemented pan Too steep for surface application	1.00 1.00 0.22
Lanoak-----	25	Somewhat limited Too steep for surface application	0.08	Very limited Seepage	1.00
61: Huffman-----	45	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00 0.31 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
Wursten-----	35	Very limited Too steep for surface application Too steep for sprinkler application Sodium content	1.00 0.10 0.02	Very limited Seepage Too steep for surface application Sodium content	1.00 0.22 0.02
62: Iphil-----	60	Very limited Too steep for surface application Too steep for sprinkler application Sodium content	1.00 0.98 0.82	Very limited Seepage Too steep for surface application Sodium content	1.00 1.00 0.82
Lonigan-----	20	Very limited Too steep for surface application Droughty Too steep for sprinkler application Depth to bedrock Filtering capacity	1.00 0.99 0.98 0.90 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
63: Ireland-----	50	Very limited Droughty Too steep for surface application Too steep for sprinkler application Depth to bedrock Cobble content	 1.00 1.00  1.00  0.95 0.59	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	 1.00 1.00 1.00  0.25
Polumar-----	25	Very limited Too steep for surface application Too steep for sprinkler application Droughty	 1.00  1.00  0.57	Very limited Seepage Too steep for surface application Cobble content Stone content Depth to bedrock	 1.00 1.00  0.95 0.81 0.77
64: Kabear-----	50	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity	 1.00  0.10  0.01	Very limited Seepage Too steep for surface application	 1.00 0.22
Staberg-----	25	Very limited Too steep for surface application Droughty Too steep for sprinkler application Depth to bedrock Filtering capacity	 1.00  0.18 0.10  0.01 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	 1.00 1.00 0.22  0.10
Copenhagen-----	15	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application Cobble content	 1.00 1.00 1.00  0.10  0.08	Very limited Seepage Depth to bedrock Too steep for surface application	 1.00 1.00 0.22

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
65: Kabear-----	50	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity	1.00  1.00  0.01	Very limited Seepage Too steep for surface application	1.00 1.00
Staberg-----	25	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.18 0.01 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	1.00 1.00 1.00 0.10
Copenhagen-----	15	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application Cobble content	1.00 1.00 1.00  1.00 0.08	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
66: Kearns-----	80	Not limited		Very limited Seepage	1.00
67: Kearnsar-----	60	Somewhat limited Slow water movement	0.31	Very limited Seepage	1.00
Battle Creek-----	25	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
68: Kidman-----	90	Not limited		Very limited Seepage	1.00
69: Kidman-----	85	Not limited		Very limited Seepage	1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
70: Kidman-----	85	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
71: Kidman, wet-----	85	Not limited		Very limited Seepage	1.00
72: Kidman-----	45	Not limited		Very limited Seepage	1.00
Sterling-----	30	Somewhat limited Droughty	0.01	Very limited Seepage	1.00
73: Lando-----	75	Very limited Slow water movement Depth to saturated zone Sodium content	1.00  0.43 0.02	Somewhat limited Seepage Depth to saturated zone Sodium content	0.69 0.43 0.02
74: Lanoak-----	75	Not limited		Very limited Seepage	1.00
75: Lanoak-----	75	Very limited Too steep for surface application Too steep for sprinkler application	1.00  0.10	Very limited Seepage Too steep for surface application	1.00 0.22
76: Lanoak-----	45	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Broadhead-----	40	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00 1.00	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
77: Lanoak-----	35	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Broadhead-----	30	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00 1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	15	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00 0.31	Very limited Seepage Too steep for surface application	1.00 1.00
78: Lanoak-----	40	Very limited Too steep for surface application Too steep for sprinkler application	1.00  0.90	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  0.90 0.31	Very limited Seepage Too steep for surface application	1.00 1.00
79: Lanoak-----	60	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
79: Thatcher-----	25	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
80: Layton-----	85	Very limited Filtering capacity Droughty	1.00 0.16	Very limited Seepage	1.00
81: Layton-----	80	Very limited Filtering capacity Droughty	1.00 0.16	Very limited Seepage	1.00
82: Lizdale-----	80	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler application Filtering capacity	1.00 1.00 1.00 0.01	Very limited Seepage Too steep for surface application Stone content	1.00 1.00 0.21
83: Lizdale-----	55	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler application Filtering capacity	1.00 1.00 1.00 0.01	Very limited Seepage Too steep for surface application Stone content	1.00 1.00 0.21
Searla-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Droughty	1.00 1.00 0.31 0.03	Very limited Seepage Too steep for surface application	1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
84: Logan-----	90	Very limited Depth to saturated zone Slow water movement Filtering capacity Too acid Sodium content	1.00 1.00 0.99 0.99 0.02	Very limited Seepage Depth to saturated zone Too acid Flooding Sodium content	1.00 1.00 0.99 0.40 0.02
85: Lonigan-----	40	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.20 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
Lizdale-----	40	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler application Filtering capacity	1.00 1.00 1.00 0.01	Very limited Seepage Too steep for surface application Stone content	1.00 1.00 0.21
86: Lonigan-----	45	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.99 0.90 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
Ricrest-----	30	Very limited Too steep for surface application Too steep for sprinkler application	1.00 1.00	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
87: Manila-----	85	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
88: Manila-----	80	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
		Too steep for surface application	1.00	Too steep for surface application	0.22
		Too steep for sprinkler application	0.10		
89: Manila-----	85	Very limited Too steep for surface application	1.00	Very limited Too steep for surface application	1.00
		Slow water movement	1.00	Seepage	0.69
		Too steep for sprinkler application	1.00		
90: Manila-----	50	Very limited Slow water movement	1.00	Somewhat limited Too steep for surface application	0.94
		Too steep for surface application	1.00	Seepage	0.69
		Too steep for sprinkler application	0.60		
Bancroft-----	30	Very limited Too steep for surface application	1.00	Very limited Seepage	1.00
		Too steep for sprinkler application	0.60	Too steep for surface application	0.94
91: Manila-----	50	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
		Too steep for surface application	1.00	Too steep for surface application	0.22
		Too steep for sprinkler application	0.10		

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
91: Broadhead-----	25	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  0.10	Very limited Seepage Too steep for surface application	1.00  0.22
92: Manila-----	40	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application Seepage	1.00  0.69
Broadhead-----	35	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  1.00	Very limited Seepage Too steep for surface application	1.00  1.00
93: Manila-----	50	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application Seepage	1.00  0.69
Lonigan-----	30	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.99 0.20 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00  1.00  1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
94: Manila-----	55	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00  1.00  0.90	Very limited Too steep for surface application Seepage	1.00  0.69
Yeates Hollow-----	30	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Cobble content	1.00  0.90  0.60 0.01	Very limited Seepage Too steep for surface application Cobble content Stone content	1.00 1.00  0.57 0.07
95: Maplecreek-----	95	Somewhat limited Depth to saturated zone Filtering capacity	0.68  0.01	Very limited Seepage Depth to saturated zone Flooding	1.00 0.68 0.40
96: Maplecreek-----	45	Somewhat limited Depth to saturated zone Filtering capacity	0.68  0.01	Very limited Seepage Depth to saturated zone Flooding	1.00 0.68 0.40
Layton-----	35	Very limited Filtering capacity Droughty	1.00  0.16	Very limited Seepage	1.00
97: Merkley-----	45	Very limited Filtering capacity Sodium content	1.00  0.02	Very limited Seepage Sodium content	1.00 0.02
Lago-----	20	Somewhat limited Depth to saturated zone Slow water movement	0.95  0.31	Very limited Seepage Depth to saturated zone Flooding	1.00 0.95 0.40

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
97: Bear Lake-----	15	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00  0.60 0.31  0.01	Very limited Flooding Seepage Depth to saturated zone	 1.00 1.00 1.00
98: Moonlight-----	40	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid	1.00  1.00  0.99 0.99	Very limited Seepage Too steep for surface application Too acid	 1.00 1.00  0.99
Camelback-----	35	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	 1.00 1.00
99: Niter-----	60	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
Brifox-----	20	Very limited Slow water movement	1.00	Not limited	
100: Northwater-----	35	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00  1.00  0.90 0.01	Very limited Seepage Too steep for surface application Stone content Depth to bedrock Cobble content	 1.00 1.00  0.98 0.77 0.17

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
100: Foxol-----	25	Very limited Droughty Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00 1.00	Very limited Seepage Depth to bedrock Too steep for surface application Stone content	1.00 1.00 1.00 1.00
Vitale-----	20	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	1.00 1.00 1.00 1.00 1.00 0.65	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	1.00 1.00 1.00 0.99 0.55
101: Northwater-----	65	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00 1.00 1.00 0.90 0.01	Very limited Seepage Too steep for surface application Stone content Cobble content	1.00 1.00 0.98 0.17
Povey-----	25	Very limited Too steep for surface application Too steep for sprinkler application	1.00 1.00	Very limited Seepage Too steep for surface application	1.00 1.00
102: Northwater-----	65	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	1.00 1.00 1.00 0.90 0.01	Very limited Seepage Too steep for surface application Stone content Cobble content	1.00 1.00 0.98 0.17

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
102: Povey-----	15	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
103: Nyman-----	50	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Droughty	1.00  1.00  0.99 0.99 0.44	Very limited Seepage Depth to bedrock Too steep for surface application Too acid Cobble content	1.00 1.00 1.00  0.99 0.36
Lonigan-----	20	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.99 0.90 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
Copenhagen-----	15	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application Cobble content	1.00 1.00 1.00  1.00 0.08	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
104: Oxford-----	45	Very limited Slow water movement	1.00	Not limited	
Banida-----	35	Very limited Slow water movement	1.00	Not limited	

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
105: Oxford-----	45	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 0.10	Somewhat limited Too steep for surface application	0.22
Banida-----	35	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 0.10	Somewhat limited Too steep for surface application	0.22
106: Oxford-----	50	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00	Very limited Too steep for surface application	1.00
Banida-----	35	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00	Very limited Too steep for surface application	1.00
107: Oxford-----	65	Very limited Slow water movement Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00	Very limited Too steep for surface application	1.00
Gullied land-----	15	Not rated		Not rated	



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
108: Parkay-----	45	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Slow water movement	1.00  1.00  0.99 0.99 0.31	Very limited Seepage Too steep for surface application Too acid Depth to bedrock	1.00 1.00  0.99 0.68
Povey-----	30	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
109: Parleys-----	85	Somewhat limited Slow water movement	0.31	Very limited Seepage	1.00
110: Parleys-----	85	Somewhat limited Too steep for surface application Slow water movement	0.68  0.31	Very limited Seepage	1.00
111: Parleys, wet-----	90	Somewhat limited Slow water movement	0.31	Very limited Seepage Flooding	1.00 0.40
112: Pavohroo-----	30	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid	1.00  1.00  0.99 0.99	Very limited Seepage Too steep for surface application Too acid	1.00 1.00  0.99

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
112: Sedgway-----	30	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Slow water movement	1.00  1.00  0.99  0.99 0.31	Very limited Seepage Too steep for surface application Too acid Stone content Cobble content	1.00 1.00  0.99 0.62 0.53
Toponce-----	20	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Too acid	1.00  1.00  1.00 0.14	Very limited Seepage Too steep for surface application Too acid	1.00 1.00  0.14
113: Picabo-----	45	Very limited Sodium content Depth to saturated zone	1.00 0.43	Very limited Seepage Sodium content Depth to saturated zone Flooding	1.00 1.00 0.43 0.40
Thatcherflats-----	30	Very limited Slow water movement Sodium content Depth to saturated zone	1.00  1.00 0.09	Very limited Sodium content Seepage Flooding Depth to saturated zone	1.00 1.00 0.40 0.09
114: Pits, gravel-----	100	Not rated		Not rated	
115: Pollynnot-----	75	Very limited Filtering capacity Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  0.31 0.10	Very limited Seepage Too steep for surface application	1.00 0.22

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
116: Pollynnot-----	75	Very limited Filtering capacity Slow water movement	1.00 0.31	Very limited Seepage	1.00
117: Pollynnot-----	75	Very limited Filtering capacity Slow water movement	1.00 0.31	Very limited Seepage	1.00
118: Pollynnot-----	75	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Slow water movement	1.00 1.00 0.78 0.31	Very limited Seepage Too steep for surface application	1.00 1.00
119: Polumar-----	45	Very limited Too steep for surface application Too steep for sprinkler application Droughty	1.00 1.00 1.00 0.57	Very limited Seepage Too steep for surface application Cobble content Stone content Depth to bedrock	1.00 1.00 0.95 0.81 0.77
Ireland-----	30	Very limited Droughty Too steep for surface application Too steep for sprinkler application Depth to bedrock Cobble content	1.00 1.00 1.00 0.95 0.59	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	1.00 1.00 1.00 0.25
120: Polumar-----	30	Very limited Too steep for surface application Too steep for sprinkler application Droughty	1.00 1.00 0.57	Very limited Seepage Too steep for surface application Cobble content Stone content Depth to bedrock	1.00 1.00 0.95 0.81 0.77

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
120: Sprowlow-----	30	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock	1.00  1.00  0.19 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content Stone content	1.00 1.00 1.00  0.62 0.11
Ireland-----	20	Very limited Droughty Too steep for surface application Too steep for sprinkler application Depth to bedrock Cobble content	1.00 1.00  1.00  0.95 0.59	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	1.00 1.00 1.00  0.25
121: Povey-----	35	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	30	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00
Hondoho-----	15	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface	1.00  1.00  0.82	Very limited Seepage Too steep for surface application	1.00 1.00
122: Povey-----	45	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
122: Parkay-----	30	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Slow water movement	1.00  1.00  0.99 0.99 0.31	Very limited Seepage Too steep for surface application Too acid Depth to bedrock	1.00 1.00  0.99 0.68
123: Preston-----	90	Very limited Filtering capacity Droughty	1.00  0.23	Very limited Seepage	1.00
124: Preston-----	90	Very limited Filtering capacity Droughty Too steep for surface application	1.00  0.23 0.08	Very limited Seepage	1.00
125: Preston-----	85	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Droughty	1.00 1.00 1.00 0.23	Very limited Seepage Too steep for surface application	1.00 1.00
126: Preston-----	55	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler application Droughty	1.00 1.00 1.00 0.23	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
126: Xerorthents-----	20	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Seepage Cobble content	1.00 1.00 1.00 1.00 0.01
127: Ricrest-----	90	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.10	Very limited Seepage Too steep for surface application	1.00 0.22
128: Sanyon-----	30	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00 1.00	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
Staberg-----	30	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00 1.00 0.18 0.01 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	1.00 1.00 1.00 0.10
Kabear-----	20	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity	1.00 1.00 0.01	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
129: Smidale-----	85	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid	1.00  1.00  0.99 0.99	Very limited Seepage Too steep for surface application Too acid Cobble content	1.00 1.00  0.99 0.82
130: Smidale-----	45	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid	1.00  1.00  0.99 0.99	Very limited Seepage Too steep for surface application Too acid Cobble content	1.00 1.00  0.99 0.82
Staberg-----	40	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.18 0.01 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content	1.00 1.00 1.00  0.10
131: Sprollow-----	45	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock	1.00  1.00  0.19 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content Stone content	1.00 1.00 1.00  0.62 0.11
Hondoho-----	35	Very limited Too steep for surface application Too steep for sprinkler application Large stones on the surface	1.00  1.00  0.82	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
132: Sprollo-----	40	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock	1.00  1.00  0.19 0.01	Very limited Seepage Depth to bedrock Too steep for surface application Cobble content Stone content	1.00 1.00 1.00  0.62 0.11
Hymas-----	35	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00  1.00	Very limited Seepage Depth to bedrock Too steep for surface application Stone content	1.00 1.00 1.00  0.01
133: Sterling-----	85	Somewhat limited Droughty	0.01	Very limited Seepage	1.00
134: Sterling-----	85	Somewhat limited Too steep for surface application Too steep for sprinkler application Droughty	0.92  0.02  0.01	Very limited Seepage Too steep for surface application	1.00 0.06
135: Sterling-----	90	Very limited Too steep for surface application Too steep for sprinkler application Droughty	1.00  1.00  0.01	Very limited Seepage Too steep for surface application	1.00 1.00
136: Sterling-----	85	Very limited Too steep for surface application Too steep for sprinkler application Droughty	1.00  1.00  0.01	Very limited Seepage Too steep for surface application	1.00 1.00
137: Sterling-----	50	Somewhat limited Droughty	0.01	Very limited Seepage	1.00



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
137: Parleys-----	30	Somewhat limited Slow water movement	0.31	Very limited Seepage	1.00
138: Thatcher-----	45	Very limited Too steep for surface application	1.00	Very limited Seepage	1.00
		Too steep for sprinkler application	0.90	Too steep for surface application	1.00
		Slow water movement	0.31		
Bearhollow-----	35	Very limited Too steep for surface application	1.00	Very limited Seepage	1.00
		Too steep for sprinkler application	0.90	Too steep for surface application	1.00
		Sodium content	0.32	Sodium content	0.32
139: Toponce-----	50	Very limited Slow water movement	1.00	Very limited Seepage	1.00
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00	Too acid	0.14
		Too acid	0.14		
Broadhead-----	30	Very limited Slow water movement	1.00	Very limited Seepage	1.00
		Too steep for surface application	1.00	Too steep for surface application	1.00
		Too steep for sprinkler application	1.00		
140: Trenton-----	50	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
		Depth to saturated zone	0.43	Depth to saturated zone	0.43
Battle Creek-----	40	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
141: Trenton, cool-----	50	Very limited Slow water movement Depth to saturated zone	1.00  0.43	Somewhat limited Seepage Depth to saturated zone	0.69  0.43
Battle Creek, cool--	40	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
142: Trenton-----	45	Very limited Slow water movement Depth to saturated zone	1.00  0.43	Somewhat limited Seepage Depth to saturated zone	0.69  0.43
Parleys-----	35	Somewhat limited Slow water movement	0.31	Very limited Seepage Flooding	1.00 0.40
143: Valmar-----	40	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Cobble content	1.00  1.00  1.00 0.90 0.75	Very limited Seepage Depth to bedrock Too steep for surface application Stone content	1.00 1.00 1.00  1.00
Camelback-----	25	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00
Hades-----	20	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
144: Vitale-----	40	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	 1.00 1.00 1.00 1.00 0.65	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	 1.00 1.00 1.00 0.99 0.55
Bergquist-----	25	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	 1.00 1.00 0.94 0.01	Very limited Seepage Too steep for surface application Depth to bedrock Cobble content	 1.00 1.00 0.14 0.11
Rock outcrop-----	15	Not rated		Not rated	
145: Vitale-----	35	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	 1.00 1.00 1.00 1.00 0.99	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	 1.00 1.00 1.00 0.99 0.55
Yeates Hollow-----	25	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Cobble content	 1.00 1.00 0.60 0.01	Very limited Seepage Too steep for surface application Cobble content Stone content	 1.00 1.00 0.57 0.07
Northwater-----	15	Very limited Too steep for surface application Too steep for sprinkler application Droughty Filtering capacity	 1.00 1.00 0.90 0.01	Very limited Seepage Too steep for surface application Stone content Depth to bedrock Cobble content	 1.00 1.00 0.98 0.77 0.17

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
146: Welby-----	90	Very limited Sodium content Filtering capacity	0.99 0.01	Very limited Seepage Sodium content	1.00 0.99
147: Welby-----	90	Very limited Sodium content Filtering capacity	0.99 0.01	Very limited Seepage Sodium content	1.00 0.99
148: Welby, wet-----	85	Somewhat limited Sodium content Filtering capacity	0.08 0.01	Very limited Seepage Sodium content	1.00 0.08
149: Collinston-----	40	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  0.31 0.10	Somewhat limited Seepage Too steep for surface application	0.69 1.00
Wheelon-----	40	Very limited Too steep for surface application Sodium content Slow water movement Too steep for sprinkler application	1.00  0.50 0.31 0.10	Very limited Seepage Sodium content Too steep for surface application	1.00 0.50 0.22
150: Wheelon-----	40	Very limited Too steep for surface application Too steep for sprinkler application Sodium content Slow water movement	1.00  1.00  0.50 0.31	Very limited Seepage Too steep for surface application Sodium content	1.00 1.00  0.50

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
150: Collinston-----	35	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Too steep for surface application Seepage	1.00  0.69
151: Wheelon-----	45	Very limited Too steep for surface application Too steep for sprinkler application Sodium content Slow water movement	1.00  1.00  0.50 0.31	Very limited Seepage Too steep for surface application Sodium content	1.00 1.00  0.50
Collinston-----	30	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement	1.00  1.00  0.31	Very limited Too steep for surface application Seepage	1.00  0.69
152: Windernot-----	40	Very limited Filtering capacity Droughty	1.00  0.99	Very limited Seepage Flooding	1.00 0.40
Lewnot-----	20	Very limited Filtering capacity Depth to saturated zone	1.00  0.68	Very limited Seepage Depth to saturated zone Flooding	1.00 0.68 0.40
Stinkcreek-----	15	Very limited Filtering capacity Depth to saturated zone Sodium content Slow water movement Droughty	1.00  1.00 1.00 0.31 0.14	Very limited Depth to saturated zone Sodium content Seepage Flooding	1.00  1.00 0.69 0.40

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
153: Winn-----	90	Somewhat limited Depth to saturated zone	0.43	Very limited Seepage Depth to saturated zone Flooding	1.00 0.43 0.40
154: Winwell-----	80	Very limited Slow water movement	1.00	Somewhat limited Seepage	0.69
155: Winwell-----	45	Very limited Slow water movement Too steep for surface application	1.00 0.32	Somewhat limited Seepage	0.69
Collinston-----	35	Somewhat limited Too steep for surface application Slow water movement	0.32 0.31	Somewhat limited Seepage	0.69
156: Wormcreek-----	50	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Droughty	1.00 1.00 0.31 0.12	Very limited Too steep for surface application Cobble content Seepage Depth to bedrock	1.00 0.80 0.69 0.61
Copenhagen-----	30	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application Cobble content	1.00 1.00 1.00 1.00 0.08	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
157: Wormcreek-----	45	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Droughty	1.00  1.00  0.31 0.12	Very limited Too steep for surface application Cobble content Seepage Depth to bedrock	1.00  0.80 0.69 0.61
Lonigan-----	35	Very limited Too steep for surface application Too steep for sprinkler application Droughty Depth to bedrock Filtering capacity	1.00  1.00  0.99 0.90 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
158: Wursten-----	45	Very limited Too steep for surface application Too steep for sprinkler application Sodium content	1.00  1.00  0.02	Very limited Seepage Too steep for surface application Sodium content	1.00 1.00 0.02
Dirtyhead-----	35	Very limited Too steep for surface application Droughty Too steep for sprinkler application Depth to bedrock	1.00  1.00 1.00 0.01	Very limited Seepage Depth to bedrock Too steep for surface application	1.00 1.00 1.00
159: Xerochrepts-----	30	Very limited Too steep for surface application Too steep for sprinkler application	1.00  1.00	Very limited Seepage Too steep for surface application	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
159: Wormcreek-----	25	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Droughty	1.00  1.00  0.31 0.12	Very limited Too steep for surface application Cobble content Seepage Depth to bedrock	1.00  0.80 0.69 0.61
Xerorthents-----	20	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00  1.00	Very limited Depth to bedrock Too steep for surface application Seepage Cobble content	1.00 1.00  1.00 0.01
160: Xerorthents-----	75	Very limited Droughty Depth to bedrock Too steep for surface application Too steep for sprinkler application	1.00 1.00 1.00  1.00	Very limited Depth to bedrock Too steep for surface application Seepage Cobble content	1.00 1.00  1.00 0.01
161: Yeates Hollow-----	85	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Cobble content	1.00  1.00  0.60 0.01	Very limited Seepage Too steep for surface application Cobble content Stone content	1.00 1.00  0.57 0.07
162: Yeates Hollow-----	40	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Cobble content	1.00  1.00  0.60 0.01	Very limited Seepage Too steep for surface application Cobble content Stone content	1.00 1.00  0.57 0.07



# Soil Survey of Franklin County Area, Idaho

Table 15.--Agricultural Waste Management (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Disposal of wastewater by irrigation		Overland flow of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
162: Manila-----	25	Very limited Too steep for surface application Slow water movement Too steep for sprinkler application	1.00  1.00  1.00	Very limited Too steep for surface application Seepage	1.00  0.69
Softback-----	15	Very limited Too steep for surface application Too steep for sprinkler application Filtering capacity Too acid Slow water movement	1.00  1.00  0.99  0.99 0.31	Very limited Seepage Too steep for surface application Too acid Stone content Cobble content	1.00 1.00  0.99 0.64 0.14
163: Yeates Hollow-----	45	Very limited Too steep for surface application Too steep for sprinkler application Slow water movement Cobble content	1.00  1.00  0.60 0.01	Very limited Seepage Too steep for surface application Cobble content Stone content	1.00 1.00  0.57 0.07
Vitale-----	35	Very limited Droughty Large stones on the surface Too steep for surface application Too steep for sprinkler application Depth to bedrock	1.00 1.00 1.00 1.00 0.80	Very limited Seepage Depth to bedrock Too steep for surface application Stone content Cobble content	1.00 1.00 1.00 0.99 0.55
164: Water-----	100	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Very limited Slow water movement Depth to saturated zone	1.00  1.00	Very limited Sodium content Salinity Slow water movement Depth to saturated zone	1.00 1.00 0.96 0.86
2: Ant Flat-----	85	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.96
3: Ant Flat-----	85	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.96
4: Ant Flat-----	90	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00  0.96 0.22
5: Ant Flat-----	65	Very limited Slow water movement Slope	1.00 0.50	Somewhat limited Slow water movement Too steep for surface application	0.96 0.68
Oxford-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.50

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
6: Ant Flat-----	50	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Oxford-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
7: Arbone-----	80	Very limited Slow water movement	1.00	Somewhat limited Filtering capacity	0.01
8: Banida-----	85	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
9: Banida-----	80	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
10: Battle Creek-----	85	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Slow water movement	1.00
11: Battle Creek-----	85	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Slow water movement	1.00
12: Battle Creek-----	95	Very limited Slow water movement Slope	1.00 0.50	Very limited Slow water movement Too steep for surface application	1.00 0.68

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
13: Bear Lake-----	40	Very limited Slow water movement Depth to saturated zone Ponding Flooding	1.00 1.00 1.00 0.60	Very limited Depth to saturated zone Ponding Flooding Slow water movement Filtering capacity	1.00 1.00 0.60 0.21 0.01
Chesbrook-----	30	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement	1.00 0.99 0.99 0.21
Picabo-----	15	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Very limited Sodium content Depth to saturated zone	1.00 0.43
14: Bear Lake-----	50	Very limited Flooding Slow water movement Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.21 0.01
Downata-----	35	Very limited Flooding Slow water movement Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99
15: Bear Lake-----	50	Very limited Flooding Slow water movement Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.21 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
15: Downata-----	25	Very limited Flooding Slow water movement Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99
Thatcherflats-----	20	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Sodium content Slow water movement Depth to saturated zone	1.00 1.00 0.09
16: Bear Lake-----	65	Very limited Slow water movement Depth to saturated zone Flooding	1.00 1.00 0.60	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 0.60 0.21 0.01
Lago-----	30	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Slow water movement	0.95 0.21
17: Bearhollow-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content	1.00 1.00 0.32
Brifox-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
Iphil-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content	1.00 1.00 0.82

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
18: Bergquist-----	60	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 0.31 0.14	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Filtering capacity	1.00 1.00 0.14 0.01
Rubble land-----	15	Not rated		Not rated	
19: Bergquist-----	45	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 0.31 0.14	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Filtering capacity	1.00 1.00 0.14 0.01
Softback-----	30	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 0.95 0.16	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid Slow water movement	1.00 1.00 0.99 0.99 0.21
20: Bergquist-----	55	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 0.31 0.14	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Filtering capacity	1.00 1.00 1.00 0.14 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
20: Vitale-----	25	Very limited Slope Slow water movement Depth to bedrock Stone content Cobble content	 1.00 1.00  1.00 1.00 0.97	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00 1.00  1.00  1.00  0.21
21: Bothwell-----	80	Very limited Slow water movement Slope	 1.00  1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  0.22  0.21
22: Bothwell-----	80	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  1.00  0.21
23: Bothwell-----	35	Very limited Slow water movement Slope	 1.00  1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  1.00  0.21
Hades-----	30	Very limited Slow water movement Slope	 1.00  1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  1.00  0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
23: Justesen-----	20	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
24: Bothwell-----	40	Very limited Slow water movement Slope	1.00 0.50	Somewhat limited Too steep for surface application Slow water movement	0.68 0.21
Thatcher-----	35	Very limited Slow water movement Slope	1.00 0.50	Somewhat limited Too steep for surface application Slow water movement	0.68 0.21
25: Brifox-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
Huffman-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
26: Brifox-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
26: Huffman-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
27: Brifox-----	55	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
Niter-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
28: Brifox-----	65	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
Niter-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
29: Brifox-----	55	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
Niter-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
30: Broadhead-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Hades-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
Yago-----	25	Very limited Slow water movement Stone content Slope Cobble content	1.00 1.00 1.00 0.63	Very limited Large stones on the surface Cobble content Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00 1.00 0.96

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
31: Broadhead-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Yago-----	35	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 1.00 0.63	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Cobble content Slow water movement	1.00 1.00 1.00 1.00 0.96
32: Camelback-----	55	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Lonigan-----	25	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
33: Camelback-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
33: Hades-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
Valmar-----	20	Very limited Slope Depth to bedrock Stone content Slow water movement Cobble content	1.00 1.00 1.00 1.00 0.10	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content Large stones on the surface	1.00 1.00 1.00 0.75 0.08
34: Cedarhill-----	90	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 0.01
35: Cedarhill-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 0.01
Hades-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
35: Ricrest-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
36: Cedarhill-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 0.01
Hondoho-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	1.00 1.00 0.82
Ridgecrest-----	20	Very limited Slope Depth to bedrock Stone content Slow water movement Cobble content	1.00 1.00 1.00 1.00 0.04	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 1.00 0.02
37: Chesbrook-----	60	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement	1.00 0.99 0.99 0.21
Bear Lake-----	20	Very limited Slow water movement Depth to saturated zone Flooding	1.00 1.00 0.60	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 0.60 0.21 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
38: Cloudless-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
Hades-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
39: Cloudless-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
Hades-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
Howcan-----	20	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 0.95 0.02	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface Filtering capacity	1.00 1.00 0.08 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
40: Copenhagen-----	35	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.08
Lonigan-----	30	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
Manila-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
41: Delish-----	40	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Very limited Depth to saturated zone Salinity Filtering capacity	0.99 0.13 0.01
Cachecan-----	25	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Sodium content Depth to saturated zone Slow water movement	0.68 0.43 0.21
Stinkcreek-----	15	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Sodium content Slow water movement	1.00 1.00 1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
42: Downata-----	80	Very limited Flooding Slow water movement Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Ponding Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99
43: Dranburn-----	45	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid Slow water movement	1.00 1.00 0.99 0.99 0.21
Robin-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
44: Enochville-----	75	Very limited Flooding Slow water movement Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 1.00 0.21 0.01
45: Foxol-----	45	Very limited Slope Depth to bedrock Stone content Slow water movement Cobble content	1.00 1.00 1.00 1.00 0.28	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 1.00 0.32



# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45: Vitale-----	30	Very limited Slope Slow water movement Depth to bedrock Stone content Cobble content	 1.00 1.00  1.00 1.00 0.97	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00 1.00  1.00  1.00  0.21
46: Hades-----	35	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  1.00  0.21
Camelback-----	20	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	 1.00  1.00
Hondoho-----	20	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	 1.00  1.00  0.82
47: Hades-----	25	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  1.00  0.21
Lanoak-----	25	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	 1.00  1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
47: Camelback-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
48: Haploxerolls-----	45	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Xerorthents-----	30	Very limited Slope Depth to bedrock Cobble content Slow water movement	1.00 1.00 0.80 0.69	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
49: Hendricks-----	90	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
50: Holmes-----	90	Very limited Slow water movement Stone content Cobble content	1.00 0.43 0.04	Very limited Filtering capacity	1.00
51: Hondee-----	85	Very limited Slow water movement	1.00	Very limited Filtering capacity	1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
52: Hondee-----	75	Very limited Slow water movement Slope	1.00 1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
53: Hondoho-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Large stones on the surface Too steep for sprinkler irrigation	1.00 0.82 0.22
Hades-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
54: Hondoho-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	1.00 1.00 0.82
Ricrest-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 0.22
55: Hondoho-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	1.00 1.00 0.82

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
55: Sprollo-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	 1.00 1.00 1.00  0.64 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	 1.00 1.00   1.00
Hades-----	20	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  1.00  0.21
56: Hondoho-----	45	Very limited Slope Slow water movement	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	 1.00  1.00  0.82
Vitale-----	30	Very limited Slope Slow water movement Depth to bedrock Stone content Cobble content	 1.00 1.00 1.00 1.00 0.97	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00 1.00  1.00  1.00  0.21
57: Huffman-----	80	Very limited Slow water movement	 1.00	Somewhat limited Slow water movement	 0.21
58: Huffman-----	80	Very limited Slow water movement Slope	 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	 1.00  0.22  0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
59: Huffman-----	45	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
Dirtyhead-----	30	Very limited Depth to bedrock Slow water movement Slope	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
60: Huffman-----	35	Very limited Slow water movement Slope	1.00 0.50	Somewhat limited Too steep for surface application Slow water movement	0.68 0.21
Harroun-----	30	Very limited Depth to cemented pan Slow water movement Slope Cobble content	1.00 1.00 1.00 0.02	Very limited Depth to cemented pan Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
Lanoak-----	25	Very limited Slow water movement	1.00	Somewhat limited Too steep for surface application	0.08
61: Huffman-----	45	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
61: Wursten-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content	1.00 0.22 0.02
62: Iphil-----	60	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content	1.00 1.00 0.82
Lonigan-----	20	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
63: Ireland-----	50	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.94 0.02	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.59
Polumar-----	25	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.98 0.95	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock	1.00 1.00 0.77

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
64: Kabear-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 0.22 0.01
Staberg-----	25	Very limited Depth to bedrock Slow water movement Slope Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 0.22 0.01
Copenhagen-----	15	Very limited Depth to bedrock Slow water movement Slope Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 0.22 0.08
65: Kabear-----	50	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 0.01
Staberg-----	25	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
65: Copenhagen-----	15	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.08
66: Kearns-----	80	Very limited Slow water movement	1.00	Not limited	
67: Kearnsar-----	60	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slow water movement	0.21
Battle Creek-----	25	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Slow water movement	1.00
68: Kidman-----	90	Very limited Slow water movement	1.00	Not limited	
69: Kidman-----	85	Very limited Slow water movement	1.00	Not limited	
70: Kidman-----	85	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
71: Kidman, wet-----	85	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Not limited	
72: Kidman-----	45	Very limited Slow water movement	1.00	Not limited	



# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
72: Sterling-----	30	Very limited Slow water movement	1.00	Not limited	
73: Lando-----	75	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.96
		Depth to saturated zone	1.00	Depth to saturated zone	0.43
				Sodium content	0.02
74: Lanoak-----	75	Very limited Slow water movement	1.00	Not limited	
75: Lanoak-----	75	Very limited Slow water movement	1.00	Very limited Too steep for surface application	1.00
		Slope	1.00	Too steep for sprinkler irrigation	0.22
76: Lanoak-----	45	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
Broadhead-----	40	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00
				Slow water movement	0.96
77: Lanoak-----	35	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Slow water movement	1.00	Too steep for sprinkler irrigation	1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
77: Broadhead-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Hades-----	15	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
78: Lanoak-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Hades-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
79: Lanoak-----	60	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Thatcher-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
80: Layton-----	85	Very limited Depth to saturated zone	1.00	Very limited Filtering capacity	1.00
81: Layton-----	80	Very limited Depth to saturated zone	1.00	Very limited Filtering capacity	1.00
82: Lizdale-----	80	Very limited Slope Slow water movement Stone content	1.00 1.00 0.01	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 1.00 0.01
83: Lizdale-----	55	Very limited Slope Slow water movement Stone content	1.00 1.00 0.01	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 1.00 0.01
Searla-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
84: Logan-----	90	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Filtering capacity Too acid Slow water movement Sodium content	1.00 0.99 0.99 0.96 0.02

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
85: Lonigan-----	40	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
Lizdale-----	40	Very limited Slow water movement Slope Stone content	1.00 1.00 0.01	Very limited Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
86: Lonigan-----	45	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
Ricrest-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
87: Manila-----	85	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.96
88: Manila-----	80	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00 0.96 0.22

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
89: Manila-----	85	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
90: Manila-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00 0.96 0.94
Bancroft-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 0.94
91: Manila-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00 0.96 0.22
Broadhead-----	25	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Slow water movement Too steep for sprinkler irrigation	1.00 0.96 0.22
92: Manila-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
92: Broadhead-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
93: Manila-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Lonigan-----	30	Very limited Depth to bedrock Slope Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
94: Manila-----	55	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Yeates Hollow-----	30	Very limited Slow water movement Slope Cobble content	1.00 1.00 0.42	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Cobble content	1.00 1.00 0.43 0.01
95: Maplecreek-----	95	Very limited Depth to saturated zone Slow water movement	1.00 0.31	Somewhat limited Depth to saturated zone Filtering capacity	0.68 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
96: Maplecreek-----	45	Very limited Depth to saturated zone Slow water movement	1.00 0.31	Somewhat limited Depth to saturated zone Filtering capacity	0.68 0.01
Layton-----	35	Very limited Depth to saturated zone	1.00	Very limited Filtering capacity	1.00
97: Merkley-----	45	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Very limited Filtering capacity Sodium content	1.00 0.02
Lago-----	20	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Slow water movement	0.95 0.21
Bear Lake-----	15	Very limited Slow water movement Depth to saturated zone Flooding	1.00 1.00 0.60	Very limited Depth to saturated zone Flooding Slow water movement Filtering capacity	1.00 0.60 0.21 0.01
98: Moonlight-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid	1.00 1.00 0.99 0.99
Camelback-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
99: Niter-----	60	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
Brifox-----	20	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
100: Northwater-----	35	Very limited Slope Depth to bedrock Slow water movement Stone content Cobble content	1.00 1.00 1.00 1.00 0.20	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Filtering capacity	1.00 1.00 1.00 0.77 0.01
Foxol-----	25	Very limited Slope Depth to bedrock Stone content Slow water movement Cobble content	1.00 1.00 1.00 1.00 0.28	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 1.00 0.32
Vitale-----	20	Very limited Slope Slow water movement Depth to bedrock Stone content Cobble content	1.00 1.00 1.00 1.00 0.97	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00 1.00 0.21
101: Northwater-----	65	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 0.89 0.03	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
Povey-----	25	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.05	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00



# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
102: Northwater-----	65	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 0.89 0.03	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00  1.00 0.01
Povey-----	15	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.01	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00  1.00
103: Nyman-----	50	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.55 0.01	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid	1.00 1.00 1.00 0.99 0.99
Lonigan-----	20	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
Copenhagen-----	15	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.08
104: Oxford-----	45	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00
Banida-----	35	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
105: Oxford-----	45	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
Banida-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Slow water movement Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 0.22
106: Oxford-----	50	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
Banida-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
107: Oxford-----	65	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00
Gullied land-----	15	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
108: Parkay-----	45	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid Depth to bedrock	1.00 1.00 0.99 0.99 0.68
Povey-----	30	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.01	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
109: Parleys-----	85	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.21
110: Parleys-----	85	Very limited Slow water movement Slope	1.00 0.50	Somewhat limited Too steep for surface application Slow water movement	0.68 0.21
111: Parleys, wet-----	90	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slow water movement	0.21
112: Pavohroo-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid	1.00 1.00 0.99 0.99

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
112: Sedgway-----	30	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 0.75 0.73	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid Slow water movement	1.00   1.00  0.99 0.99 0.21
Toponce-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Too acid	1.00  1.00 0.96 0.14
113: Picabo-----	45	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Very limited Sodium content Depth to saturated zone	1.00 0.43
Thatcherflats-----	30	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Sodium content Slow water movement Depth to saturated zone	1.00 1.00 0.09
114: Pits, gravel-----	100	Not rated		Not rated	
115: Pollynot-----	75	Very limited Slow water movement Slope	1.00 1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00  1.00 0.22 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
116: Pollynnot-----	75	Very limited Slow water movement	1.00	Very limited Filtering capacity Slow water movement	1.00 0.21
117: Pollynnot-----	75	Very limited Slow water movement	1.00	Very limited Filtering capacity Slow water movement	1.00 0.21
118: Pollynnot-----	75	Very limited Slow water movement Slope	1.00 1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00 0.21
119: Polumar-----	45	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.98 0.95	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock	1.00 1.00 1.00 0.77
Ireland-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.94 0.02	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.59
120: Polumar-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.98 0.95	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock	1.00 1.00 0.77

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
120: Sprollo-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.64 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
Ireland-----	20	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.94 0.02	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.59
121: Povey-----	35	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.01	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Hades-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
Hondoho-----	15	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	1.00 1.00 0.82
122: Povey-----	45	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.01	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
122: Parkay-----	30	Very limited Slope Slow water movement Depth to bedrock	1.00 1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid Depth to bedrock	1.00 1.00 0.99 0.99 0.68
123: Preston-----	90	Not limited		Very limited Filtering capacity	1.00
124: Preston-----	90	Not limited		Very limited Filtering capacity Too steep for surface application	1.00 0.08
125: Preston-----	85	Very limited Slope	1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
126: Preston-----	55	Very limited Slope	1.00	Very limited Filtering capacity Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
Xerorthents-----	20	Very limited Slope Depth to bedrock Cobble content Slow water movement	1.00 1.00 0.80 0.69	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
127: Ricrest-----	90	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 0.22
128: Sanyon-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.10	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
Staberg-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
Kabear-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 0.01
129: Smidale-----	85	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.88	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid	1.00 1.00 0.99 0.99



# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
130: Smidale-----	45	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.88	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid	1.00 1.00 0.99 0.99
Staberg-----	40	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
131: Sprollo-----	45	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.64 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
Hondoho-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Large stones on the surface	1.00 1.00 0.82
132: Sprollo-----	40	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 0.64 0.12	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
Hymas-----	35	Very limited Slope Depth to bedrock Slow water movement Stone content Cobble content	1.00 1.00 1.00 0.29 0.01	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
133: Sterling-----	85	Very limited Slow water movement	1.00	Not limited	
134: Sterling-----	85	Very limited Slow water movement Slope	1.00 0.88	Somewhat limited Too steep for surface application Too steep for sprinkler irrigation	0.92 0.06
135: Sterling-----	90	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
136: Sterling-----	85	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
137: Sterling-----	50	Very limited Slow water movement	1.00	Not limited	
Parleys-----	30	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.21
138: Thatcher-----	45	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
Bearhollow-----	35	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content	1.00 1.00 0.32

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
139: Toponce-----	50	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Too acid	1.00 1.00 0.96 0.14
Broadhead-----	30	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
140: Trenton-----	50	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slow water movement Depth to saturated zone	0.96 0.43
Battle Creek-----	40	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Slow water movement	1.00
141: Trenton, cool-----	50	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slow water movement Depth to saturated zone	0.96 0.43
Battle Creek, cool--	40	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Slow water movement	1.00
142: Trenton-----	45	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slow water movement Depth to saturated zone	0.96 0.43
Parleys-----	35	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Somewhat limited Slow water movement	0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
143: Valmar-----	40	Very limited Slope Depth to bedrock Stone content Slow water movement Cobble content	1.00 1.00 1.00 1.00 0.10	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content Large stones on the surface	1.00 1.00 1.00 0.75 0.08
Camelback-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Hades-----	20	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
144: Vitale-----	40	Very limited Slope Slow water movement Depth to bedrock Stone content Cobble content	1.00 1.00 1.00 1.00 0.97	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00 1.00 0.21
Bergquist-----	25	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 0.31 0.14	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Filtering capacity	1.00 1.00 0.14 0.01
Rock outcrop-----	15	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
145: Vitale-----	35	Very limited Slope Depth to bedrock Slow water movement Cobble content Stone content	1.00 1.00 1.00 1.00 1.00	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 1.00 1.00 0.04
Yeates Hollow-----	25	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.42	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Cobble content	1.00 1.00 0.43 0.01
Northwater-----	15	Very limited Slope Depth to bedrock Slow water movement Stone content Cobble content	1.00 1.00 1.00 1.00 0.20	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Filtering capacity	1.00 1.00 1.00 0.77 0.01
146: Welby-----	90	Very limited Slow water movement	1.00	Very limited Sodium content Filtering capacity	0.99 0.01
147: Welby-----	90	Very limited Slow water movement	1.00	Very limited Sodium content Filtering capacity	0.99 0.01
148: Welby, wet-----	85	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Somewhat limited Sodium content Filtering capacity	0.08 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
149: Collinston-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 0.22 0.21
Wheelon-----	40	Very limited Slow water movement Slope	1.00 1.00	Very limited Too steep for surface application Sodium content Too steep for sprinkler irrigation Slow water movement	1.00 0.50 0.22 0.21
150: Wheelon-----	40	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content Slow water movement	1.00 1.00 0.50 0.21
Collinston-----	35	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
151: Wheelon-----	45	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content Slow water movement	1.00 1.00 0.50 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
151: Collinston-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.21
152: Windernot-----	40	Very limited Depth to saturated zone Slow water movement	1.00 0.31	Very limited Filtering capacity	1.00
Lewnot-----	20	Very limited Depth to saturated zone Slow water movement	1.00 0.61	Very limited Filtering capacity Depth to saturated zone	1.00 0.68
Stinkcreek-----	15	Very limited Slow water movement Depth to saturated zone	1.00 1.00	Very limited Filtering capacity Depth to saturated zone Sodium content Slow water movement	1.00 1.00 1.00 0.21
153: Winn-----	90	Very limited Depth to saturated zone Slow water movement	1.00 1.00	Somewhat limited Depth to saturated zone	0.43
154: Winwell-----	80	Very limited Slow water movement	1.00	Somewhat limited Slow water movement	0.96
155: Winwell-----	45	Very limited Slow water movement Slope	1.00 0.12	Somewhat limited Slow water movement Too steep for surface application	0.96 0.32
Collinston-----	35	Very limited Slow water movement Slope	1.00 0.12	Somewhat limited Too steep for surface application Slow water movement	0.32 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
156: Wormcreek-----	50	Very limited Slope Slow water movement Depth to bedrock Cobble content	1.00 1.00 1.00 0.93	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Slow water movement	1.00  1.00  0.61 0.21
Copenhagen-----	30	Very limited Slope Depth to bedrock Slow water movement Cobble content	1.00 1.00 1.00 0.14	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Cobble content	1.00 1.00 1.00 0.08
157: Wormcreek-----	45	Very limited Slope Slow water movement Depth to bedrock Cobble content	1.00 1.00 1.00 0.93	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Slow water movement	1.00  1.00  0.61 0.21
Lonigan-----	35	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 0.31	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation Filtering capacity	1.00 1.00 1.00 0.01
158: Wursten-----	45	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Sodium content	1.00  1.00 0.02



# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
158: Dirtyhead-----	35	Very limited Slope Depth to bedrock Slow water movement	1.00 1.00 1.00	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
159: Xerochrepts-----	30	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00
Wormcreek-----	25	Very limited Slope Slow water movement Depth to bedrock Cobble content	1.00 1.00 1.00 0.93	Very limited Too steep for surface application Too steep for sprinkler irrigation Depth to bedrock Slow water movement	1.00 1.00 1.00 0.61 0.21
Xerorthents-----	20	Very limited Slope Depth to bedrock Cobble content Slow water movement	1.00 1.00 0.80 0.69	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
160: Xerorthents-----	75	Very limited Slope Depth to bedrock Cobble content Slow water movement	1.00 1.00 0.80 0.69	Very limited Depth to bedrock Too steep for surface application Too steep for sprinkler irrigation	1.00 1.00 1.00
161: Yeates Hollow-----	85	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.42	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Cobble content	1.00 1.00 0.43 0.01

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
162: Yeates Hollow-----	40	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.42	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Cobble content	1.00 1.00 0.43 0.01
Manila-----	25	Very limited Slope Slow water movement	1.00 1.00	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 0.96
Softback-----	15	Very limited Slope Slow water movement Stone content Cobble content	1.00 1.00 0.95 0.16	Very limited Too steep for surface application Too steep for sprinkler irrigation Filtering capacity Too acid Slow water movement	1.00 1.00 0.99 0.99 0.21
163: Yeates Hollow-----	45	Very limited Slope Slow water movement Cobble content	1.00 1.00 0.42	Very limited Too steep for surface application Too steep for sprinkler irrigation Slow water movement Cobble content	1.00 1.00 0.43 0.01
Vitale-----	35	Very limited Slope Slow water movement Depth to bedrock Cobble content Stone content	1.00 1.00 1.00 1.00 1.00	Very limited Depth to bedrock Large stones on the surface Too steep for surface application Too steep for sprinkler irrigation Slow water movement	1.00 1.00 1.00 1.00 0.21

# Soil Survey of Franklin County Area, Idaho

Table 16.--Agricultural Waste Management (Part 3)--Continued

Map symbol and soil name	Pct. of map unit	Rapid infiltration of wastewater		Slow rate treatment of wastewater	
		Rating class and limiting features	Value	Rating class and limiting features	Value
164: Water-----	100	Not rated		Not rated	

Table 17.--Construction Materials (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. Values of 0.00 indicate absolute limitations based on the soil property criteria used to develop the interpretation. Values closer to 1.00 indicate lesser limitations. Fine-earth fractions and content of rock fragments are reported on a weight basis. The rating criteria and abbreviations used in this table are described at the end of the table.)

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor SAR >13 EC >8 dS/m Calcium carbonates 15-40% Wetness from 1 to 2.8' Clay 27 to 40%	0.00 0.00 0.16 0.89 0.98
2: Ant Flat-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
3: Ant Flat-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
4: Ant Flat-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
5: Ant Flat-----	65	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
Oxford-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope 8 to 12%	0.00 0.96

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
6: Ant Flat-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope > 15% Clay >40%	0.00 0.00
Oxford-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope >15%	0.00 0.00
7: Arbone-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80
8: Banida-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
9: Banida-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
10: Battle Creek-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
11: Battle Creek-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
12: Battle Creek-----	95	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
13: Bear Lake-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth	0.00
Chesbrook-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Calcium carbonates >40% Wetness from 1 to 2.8' Clay 27 to 40%	0.00 0.00 0.12
Picabo-----	15	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Calcium carbonates >40% SAR 4 to 13	0.00 0.98
14: Bear Lake-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth	0.00
Downata-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth Calcium carbonates 15-40% Clay 27 to 40%	0.00 0.46 0.98
15: Bear Lake-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth	0.00
Downata-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth Calcium carbonates 15-40% Clay 27 to 40%	0.00 0.46 0.98

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
15: Thatcherflats-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor SAR >13 EC 4 to 8 dS/m	0.00 0.50
16: Bear Lake-----	65	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth	0.00
Lago-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Wetness from 1 to 2.8'	0.46 0.76
17: Bearhollow-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.32 0.78 0.92
Brifox-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Calcium carbonates 15-40%	0.00 0.00 0.46
Iphil-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.22 0.68
18: Bergquist-----	60	Fair Bottom layer a possible source Thickest layer possible source	0.37 0.37	Poor Bottom layer a possible source Thickest layer a possible source	0.04 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Rubble land-----	15	Not rated		Not rated		Not rated	

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
19: Bergquist-----	45	Fair Bottom layer a possible source Thickest layer possible source	0.37 0.37	Poor Bottom layer a possible source Thickest layer a possible source	0.04 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Softback-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
20: Bergquist-----	55	Fair Bottom layer a possible source Thickest layer possible source	0.37 0.37	Poor Bottom layer a possible source Thickest layer a possible source	0.04 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Vitale-----	25	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.42
21: Bothwell-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
22: Bothwell-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
23: Bothwell-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
Hades-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99



Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
23: Justesen-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim	0.00 0.32
24: Bothwell-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
Thatcher-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.92
25: Brifox-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.46
Huffman-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
26: Brifox-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.46
Huffman-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
27: Brifox-----	55	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.46

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
27: Niter-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
28: Brifox-----	65	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.46
Niter-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Calcium carbonates 15-40%	0.00 0.00 0.80
29: Brifox-----	55	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Calcium carbonates 15-40%	0.00 0.00 0.46
Niter-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Calcium carbonates 15-40%	0.00 0.00 0.80
30: Broadhead-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40% Slope 12 to 15%	0.05 0.37
Hades-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Rock fragment content Slope 12 to 15% Clay 27 to 40% Not hard to reclaim	0.08 0.37 0.98 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
30: Yago-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Hard to reclaim Rock fragment content Slope 12 to 15% Clay 27 to 40%	0.00 0.00 0.00 0.98
31: Broadhead-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40%	0.00 0.01
Yago-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.98
32: Camelback-----	55	Fair Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Lonigan-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.22 0.68
33: Camelback-----	40	Fair Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Hades-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
33: Valmar-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.22
34: Cedarhill-----	90	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
35: Cedarhill-----	40	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
Hades-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99
Ricrest-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Calcium carbonates 15-40% Hard to reclaim	0.00 0.00 0.46 0.88
36: Cedarhill-----	35	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
Hondoho-----	30	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.46

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
36: Ridgecrest-----	20	Poor Bottom layer not a source Thickest layer possible source	0.00 0.03	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.38 0.68
37: Chesbrook-----	60	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Calcium carbonates >40% Wetness from 1 to 2.8' Clay 27 to 40%	0.00 0.00 0.12
Bear Lake-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth	0.00
38: Cloudless-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Clay <27%	0.00 0.74 0.99
Hades-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Rock fragment content Clay 27 to 40% Not hard to reclaim	0.08 0.98 0.99
39: Cloudless-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Clay <27%	0.00 0.00 0.74 0.99
Hades-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
39: Howcan-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Hard to reclaim	0.00 0.00 0.05
40: Copenhagen-----	35	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Depth to bedrock <20" Slope >15%	0.00 0.00 0.00
Lonigan-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Calcium carbonates 15-40% Depth to bedrock 20 to 40"	0.00 0.00 0.68 0.68
Manila-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40% Hard to reclaim	0.00 0.08 0.68
41: Delish-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Wetness from 1 to 2.8'	0.53
Cachecan-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair SAR 4 to 13	0.40
Stinkcreek-----	15	Fair Thickest layer possible source Bottom layer a possible source	0.05 0.43	Good Thickest layer a possible source Bottom layer a possible source	0.08 0.86	Poor Wetness <1' depth Hard to reclaim Rock fragment content Sand fractions 75-85% SAR 4 to 13	0.00 0.00 0.00 0.16 0.78

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
42: Downata-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth Calcium carbonates 15-40% Clay 27 to 40%	0.00 0.46 0.98
43: Dranburn-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40%	0.00 0.08 0.95
Robin-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
44: Enochville-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.03	Poor Hard to reclaim Wetness from 1 to 2.8'	0.00 0.14
45: Foxol-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Depth to bedrock <20" Rock fragment content	0.00 0.00 0.00
Vitale-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.42
46: Hades-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map  unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
46: Camelback-----	20	Fair Bottom layer not a source Thickest layer possible source	 0.00 0.12	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	 0.00 0.00 0.00
Hondoho-----	20	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	 0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	 0.00 0.00 0.00 0.46
47: Hades-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	 0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	 0.00 0.08 0.98 0.99
Lanoak-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	 0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15%	 0.00
Camelback-----	25	Fair Bottom layer not a source Thickest layer possible source	 0.00 0.12	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	 0.00 0.00 0.00
48: Haploxerolls-----	45	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	 0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content	 0.00 0.00 0.00
Xerorthents-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	 0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	 0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	 0.00 0.00 0.00 0.88



Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
49: Hendricks-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40%	0.98
50: Holmes-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Thickest layer not a source Bottom layer a possible source	0.00 0.40	Poor Bulk density >1.8 in upper 20" Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
51: Hondee-----	85	Fair Bottom layer not a source Thickest layer possible source	0.00 0.18	Fair Thickest layer a possible source Bottom layer a possible source	0.03 0.10	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.16 0.68
52: Hondee-----	75	Fair Bottom layer not a source Thickest layer possible source	0.00 0.18	Fair Thickest layer a possible source Bottom layer a possible source	0.03 0.10	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.16 0.68
53: Hondoho-----	50	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.46
Hades-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Rock fragment content Clay 27 to 40% Not hard to reclaim	0.08 0.98 0.99
54: Hondoho-----	50	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Slope 12 to 15% Calcium carbonates 15-40%	0.00 0.00 0.37 0.46

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map  unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
54: Ricrest-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Calcium carbonates 15-40% Hard to reclaim	0.00 0.46 0.88
55: Hondoho-----	35	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.46
Sprollo-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.00 0.98
Hades-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99
56: Hondoho-----	45	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.46
Vitale-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.42
57: Huffman-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
58: Huffman-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
59: Huffman-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
Dirtyhead-----	30	Fair Bottom layer a possible source Thickest layer possible source	0.22 0.22	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Calcium carbonates 15-40% Depth to bedrock 20 to 40"	0.00 0.68 0.94
60: Huffman-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
Harroun-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.03	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.03	Poor Depth to pan <20" Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.32
Lanoak-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
61: Huffman-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
Wursten-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Rock fragment content Calcium carbonates 15-40%	0.68 0.80

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62: Iphil-----	60	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Slope 12 to 15% SAR 4 to 13 Calcium carbonates 15-40%	0.04 0.22 0.68
Lonigan-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope 12 to 15% Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.04 0.22 0.68
63: Ireland-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.16 0.80
Polumar-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
64: Kabear-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
Staberg-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer not a source	0.00 0.00	Fair Rock fragment content Depth to bedrock 20 to 40"	0.18 0.94
Copenhagen-----	15	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Depth to bedrock <20"	0.00 0.00

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map  unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
65: Kabear-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
Staberg-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.18 0.94
Copenhagen-----	15	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Depth to bedrock <20" Slope >15%	0.00 0.00 0.00
66: Kearns-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
67: Kearnsar-----	60	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40%	0.98
Battle Creek-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
68: Kidman-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80
69: Kidman-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
70: Kidman-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40%	0.00 0.80
71: Kidman, wet-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80
72: Kidman-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80
Sterling-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.68
73: Lando-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Clay 27 to 40%	0.80 0.98
74: Lanoak-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
75: Lanoak-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
76: Lanoak-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
Broadhead-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40%	0.00 0.05
77: Lanoak-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
Broadhead-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40%	0.00 0.05
Hades-----	15	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99
78: Lanoak-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Slope 12 to 15%	0.16
Hades-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Rock fragment content Slope 12 to 15% Clay 27 to 40% Not hard to reclaim	0.08 0.16 0.98 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
79: Lanoak-----	60	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
Thatcher-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40%	0.00 0.92
80: Layton-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.10 0.10	Poor Sand fractions 75-85%	0.00
81: Layton-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.10 0.10	Poor Sand fractions 75-85%	0.00
82: Lizdale-----	80	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.43	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.40	Poor Slope >15% Calcium carbonates >40% Rock fragment content Hard to reclaim	0.00 0.00 0.00 0.00
83: Lizdale-----	55	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.43	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.03	Poor Calcium carbonates >40% Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00 0.00
Searla-----	35	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Hard to reclaim Clay 27 to 40%	0.00 0.00 0.00 0.98



Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
84: Logan-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth Clay 27 to 40%	0.00 0.76
85: Lonigan-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Calcium carbonates 15-40% Depth to bedrock 20 to 40"	0.00 0.00 0.68 0.68
Lizdale-----	40	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.43	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.03	Poor Calcium carbonates >40% Rock fragment content Hard to reclaim Slope >15%	0.00 0.00 0.00 0.00
86: Lonigan-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.22 0.68
Ricrest-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Calcium carbonates 15-40% Hard to reclaim	0.00 0.00 0.46 0.88
87: Manila-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40% Hard to reclaim	0.08 0.68
88: Manila-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40% Hard to reclaim	0.08 0.68

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
89: Manila-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40% Hard to reclaim	0.00 0.08 0.68
90: Manila-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40% Slope 8 to 12% Hard to reclaim	0.08 0.63 0.68
Bancroft-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Slope 8 to 12%	0.63
91: Manila-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40% Hard to reclaim	0.08 0.68
Broadhead-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40%	0.05
92: Manila-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40% Hard to reclaim	0.00 0.08 0.68
Broadhead-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40%	0.00 0.05
93: Manila-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40% Hard to reclaim	0.00 0.08 0.68

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Lonigan-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Calcium carbonates 15-40% Depth to bedrock 20 to 40"	0.00 0.00 0.68 0.68
94: Manila-----	55	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40% Slope 12 to 15% Hard to reclaim	0.08 0.16 0.68
Yeates Hollow-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Hard to reclaim Rock fragment content Slope 12 to 15%	0.00 0.00 0.00 0.16
95: Maplecreek-----	95	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.07	Fair Calcium carbonates 15-40% Wetness from 1 to 2.8'	0.92 0.98
96: Maplecreek-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.07	Fair Calcium carbonates 15-40% Wetness from 1 to 2.8'	0.92 0.98
Layton-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.10 0.10	Poor Sand fractions 75-85%	0.00
97: Merkley-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Thickest layer not a source Bottom layer a possible source	0.00 0.08	Poor Hard to reclaim Calcium carbonates 15-40%	0.00 0.92

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
97: Lago-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Wetness from 1 to 2.8'	0.46 0.76
Bear Lake-----	15	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Wetness <1' depth	0.00
98: Moonlight-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content	0.00 0.76
Camelback-----	35	Fair Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
99: Niter-----	60	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
Brifox-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.46
100: Northwater-----	35	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Foxol-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Depth to bedrock <20" Rock fragment content	0.00 0.00 0.00

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
100: Vitale-----	20	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.42
101: Northwater-----	65	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content	0.00 0.00
Povey-----	25	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.35	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.04	Poor Rock fragment content Slope >15% Hard to reclaim	0.00 0.00 0.00
102: Northwater-----	65	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content	0.00 0.00
Povey-----	15	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.35	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
103: Nyman-----	50	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.84
Lonigan-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.22 0.68
Copenhagen-----	15	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
104: Oxford-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
Banida-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
105: Oxford-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
Banida-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
106: Oxford-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope >15%	0.00 0.00
Banida-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope >15%	0.00 0.00
107: Oxford-----	65	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40%	0.00 0.00
Gullied land-----	15	Not rated		Not rated		Not rated	

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
108: Parkay-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Clay 27 to 40%	0.00 0.00 0.00 0.98
Povey-----	30	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.35	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
109: Parleys-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Clay 27 to 40%	0.92 0.98
110: Parleys-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Clay 27 to 40%	0.92 0.98
111: Parleys, wet-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Clay 27 to 40%	0.92 0.98
112: Pavohroo-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content	0.00 0.41 0.92
Sedgway-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Clay <27%	0.00 0.00 0.00 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
112: Toponce-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40%	0.00 0.00
113: Picabo-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Calcium carbonates >40% SAR 4 to 13	0.00 0.98
Thatcherflats-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor SAR >13 EC 4 to 8 dS/m	0.00 0.50
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.06	Fair SAR 4 to 13 Calcium carbonates 15-40%	0.78 0.92
116: Pollynot-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.06	Fair SAR 4 to 13 Calcium carbonates 15-40%	0.78 0.92
117: Pollynot-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.06	Fair SAR 4 to 13 Calcium carbonates 15-40%	0.78 0.92
118: Pollynot-----	75	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.06	Fair Slope 12 to 15% SAR 4 to 13 Calcium carbonates 15-40%	0.37 0.78 0.92



Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
119: Polumar-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Ireland-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.16 0.80
120: Polumar-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Sprowlow-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.00 0.98
Ireland-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.16 0.80
121: Povey-----	35	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.35	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.04	Poor Rock fragment content Slope >15% Hard to reclaim	0.00 0.00 0.00
Hades-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
121: Hondoho-----	15	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.46
122: Povey-----	45	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.35	Poor Thickest layer not a source Bottom layer a possible source	0.00 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Parkay-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Clay 27 to 40%	0.00 0.00 0.00 0.98
123: Preston-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.05 0.31	Poor Sand fractions >85%	0.00
124: Preston-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.05 0.31	Poor Sand fractions >85%	0.00
125: Preston-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.05 0.31	Poor Sand fractions >85% Slope >15%	0.00 0.00
126: Preston-----	55	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.05 0.31	Poor Slope >15% Sand fractions >85%	0.00 0.00

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
126: Xerorthents-----	20	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.88
127: Ricrest-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Calcium carbonates 15-40% Hard to reclaim	0.00 0.46 0.88
128: Sanyon-----	30	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.20	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
Staberg-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.18 0.94
Kabear-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15%	0.00
129: Smidale-----	85	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
130: Smidale-----	45	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay <27% Rock fragment content	0.00 0.99 0.00
Staberg-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.18 0.94

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
131: Sprollo-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.00 0.98
Hondoho-----	35	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.07	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.46
132: Sprollo-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.00 0.98
Hymas-----	35	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Depth to bedrock <20" Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.46
133: Sterling-----	85	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.68
134: Sterling-----	85	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.68
135: Sterling-----	90	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.68

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
136: Sterling-----	85	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
137: Sterling-----	50	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.68
Parleys-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Clay 27 to 40%	0.92 0.98
138: Thatcher-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Slope 12 to 15% Clay 27 to 40%	0.16 0.95
Bearhollow-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope 12 to 15% Hard to reclaim SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.16 0.32 0.78 0.92
139: Toponce-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Slope >15%	0.00 0.00
Broadhead-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40%	0.00 0.05

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
140: Trenton-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40%	0.88
Battle Creek-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
141: Trenton, cool-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40%	0.88
Battle Creek, cool	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40% Calcium carbonates 15-40%	0.00 0.80
142: Trenton-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Clay 27 to 40%	0.88
Parleys-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% Clay 27 to 40%	0.92 0.98
143: Valmar-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.22
Camelback-----	25	Fair Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
143: Hades-----	20	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Clay 27 to 40% Not hard to reclaim	0.00 0.08 0.98 0.99
144: Vitale-----	40	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.42
Bergquist-----	25	Fair Bottom layer a possible source Thickest layer possible source	0.37 0.37	Poor Bottom layer a possible source Thickest layer a possible source	0.04 0.04	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Rock outcrop-----	15	Not rated		Not rated		Not rated	
145: Vitale-----	35	Poor Thickest layer not a source because of fines or thin layer	0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Depth to bedrock 20 to 40"	0.00 0.00 0.06
Yeates Hollow-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Northwater-----	15	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
146: Welby-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor SAR >13 Calcium carbonates 15-40%	0.00 0.68

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
147: Welby-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor SAR >13 Calcium carbonates 15-40%	0.00 0.68
148: Welby, wet-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% SAR 4 to 13	0.46 0.98
149: Collinston-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80
Wheelon-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40% SAR 4 to 13	0.46 0.60
150: Wheelon-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40% SAR 4 to 13	0.00 0.46 0.60
Collinston-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40%	0.00 0.80
151: Wheelon-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40% SAR 4 to 13	0.00 0.46 0.60
Collinston-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40%	0.00 0.80



Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
152: Windernot-----	40	Fair Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.38	Good Thickest layer a possible source Bottom layer a possible source	0.03 0.79	Poor Bulk density >1.8 in upper 20" Sand fractions >85% Rock fragment content Hard to reclaim	0.00 0.00 0.00 0.00
Lewnot-----	20	Poor Bottom layer not a source Thickest layer not a source to fines of thin layer	0.00 0.00	Fair Bottom layer a possible source Thickest layer a possible source	0.08 0.60	Poor Bulk density >1.8 in upper 20" Hard to reclaim Wetness from 1 to 2.8'	0.00 0.00 0.98
Stinkcreek-----	15	Fair Thickest layer possible source Bottom layer a possible source	0.05 0.43	Good Thickest layer a possible source Bottom layer a possible source	0.08 0.86	Poor Wetness <1' depth Hard to reclaim Rock fragment content Sand fractions 75-85% SAR 4 to 13	0.00 0.00 0.00 0.16 0.78
153: Winn-----	90	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Good	
154: Winwell-----	80	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
155: Winwell-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Clay >40%	0.00
Collinston-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair Calcium carbonates 15-40%	0.80

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
156: Wormcreek-----	50	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Copenhagen-----	30	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
157: Wormcreek-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Lonigan-----	35	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.22 0.68
158: Wursten-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Calcium carbonates 15-40%	0.00 0.68 0.80
Dirtyhead-----	35	Fair Bottom layer a possible source Thickest layer possible source	0.22 0.22	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Rock fragment content Slope >15% Calcium carbonates 15-40% Depth to bedrock 20 to 40"	0.00 0.00 0.68 0.94
159: Xerochrepts-----	30	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Calcium carbonates 15-40%	0.00 0.88

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
159: Wormcreek-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Xerorthents-----	20	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.88
160: Xerorthents-----	75	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.88
161: Yeates Hollow-----	85	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
162: Yeates Hollow-----	40	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Manila-----	25	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay 27 to 40% Hard to reclaim	0.00 0.08 0.68
Softback-----	15	Poor Thickest layer not a source because of fines or thin layer Bottom layer a possible source	0.00 0.05	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00

Table 17.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of gravel		Potential as a source of sand		Potential as a source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
163: Yeates Hollow-----	45	Poor Bottom layer not a source Thickest layer not a source because of fines or thin layer	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Clay >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Vitale-----	35	Poor Thickest layer not a source because of fines or thin layer Bottom layer not a source	0.00 0.00	Poor Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.32
164: Water-----	100	Not rated		Not rated		Not rated	

The interpretation for *gravel* evaluates the content of rock fragments more than 0.2 inch in diameter in the bottom or thickest layer of the soil.

The interpretation for *sand* evaluates the content of sand and fine gravel in the thickest or bottom layer of the soil. Organic soil layers with a Unified engineering class for peat (PT) also are evaluated.

The interpretation for *topsoil* evaluates the following soil properties at various depths: calcium carbonates, content of clay, soil bulk density, content of sand, soil wetness, rock fragments 0.2 inch to 3 inches in diameter, rock fragments more than 3 inches in diameter, content of organic matter, sodium content expressed as the sodium adsorption ratio (SAR), salinity expressed as mmhos/cm of electrical conductivity (EC), depth to bedrock, slope, and soil pH.

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Poor Sodium content Too alkaline Salinity Carbonate content Water erosion Too clayey	 0.00 0.00 0.00 0.16 0.68 0.98	Poor Low strength Shrink-swell Wetness	 0.00 0.87 0.89
2: Ant Flat-----	85	Poor Too clayey Carbonate content Water erosion	 0.00 0.68 0.99	Poor Low strength Shrink-swell	 0.00 0.35
3: Ant Flat-----	85	Poor Too clayey Carbonate content Water erosion	 0.00 0.68 0.99	Poor Low strength Shrink-swell	 0.00 0.35
4: Ant Flat-----	90	Poor Too clayey Carbonate content Water erosion	 0.00 0.68 0.99	Poor Low strength Shrink-swell	 0.00 0.35
5: Ant Flat-----	65	Poor Too clayey Carbonate content Water erosion	 0.00 0.68 0.99	Poor Low strength Shrink-swell	 0.00 0.35
Oxford-----	25	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.88 0.99	Poor Low strength Shrink-swell	 0.00 0.12
6: Ant Flat-----	50	Poor Too clayey Carbonate content Water erosion	 0.00 0.68 0.99	Poor Low strength Shrink-swell Slope	 0.00 0.35 0.98
Oxford-----	35	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.88 0.99	Poor Low strength Shrink-swell Slope	 0.00 0.12 0.98

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
7: Arbone-----	80	Fair Low content of organic matter Carbonate content Water erosion	 0.50 0.80 0.99	Good	
8: Banida-----	85	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.00 0.99	Poor Low strength Shrink-swell	 0.00 0.12
9: Banida-----	80	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.00 0.99	Poor Low strength Shrink-swell	 0.00 0.12
10: Battle Creek-----	85	Poor Too clayey Carbonate content Low content of organic matter	 0.00 0.80 0.88	Poor Low strength Shrink-swell	 0.00 0.39
11: Battle Creek-----	85	Poor Too clayey Carbonate content Low content of organic matter	 0.00 0.80 0.88	Poor Low strength Shrink-swell	 0.00 0.39
12: Battle Creek-----	95	Poor Too clayey Carbonate content Low content of organic matter	 0.00 0.80 0.88	Poor Low strength Shrink-swell	 0.00 0.39
13: Bear Lake-----	40	Fair Low content of organic matter Carbonate content Water erosion	 0.12 0.46 0.68	Poor Wetness Low strength	 0.00 0.00
Chesbrook-----	30	Poor Carbonate content Too clayey Too acid	 0.00 0.12 0.32	Poor Low strength Wetness Shrink-swell	 0.00 0.00 0.87
Picabo-----	15	Poor Carbonate content Sodium content Water erosion Low content of organic matter	 0.00 0.00 0.37 0.50	Fair Low strength	 0.78

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill		
		Rating class and limiting features	Value	Rating class and limiting features	Value
14: Bear Lake-----	50	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.68	Poor Wetness Low strength	0.00 0.00
Downata-----	35	Fair Too acid Carbonate content Too clayey	0.32 0.46 0.98	Poor Wetness Low strength Shrink-swell	0.00 0.00 0.90
15: Bear Lake-----	50	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.68	Poor Wetness Low strength	0.00 0.00
Downata-----	25	Fair Too acid Carbonate content Too clayey	0.32 0.46 0.98	Poor Wetness Low strength Shrink-swell	0.00 0.00 0.90
Thatcherflats-----	20	Poor Sodium content Too alkaline Low content of organic matter Water erosion	0.00 0.00 0.12 0.37	Poor Low strength Shrink-swell	0.00 0.12
16: Bear Lake-----	65	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.68	Poor Wetness Low strength	0.00 0.00
Lago-----	30	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.99	Poor Low strength Wetness Shrink-swell	0.00 0.76 0.99
17: Bearhollow-----	30	Fair Low content of organic matter Sodium content Carbonate content	0.12 0.78 0.92	Poor Slope	0.00
Brifox-----	25	Poor Too clayey Carbonate content Low content of organic matter Water erosion	0.00 0.46 0.88 0.99	Poor Shrink-swell Low strength Slope	0.00 0.00 0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features
17: Iphil-----	20	Fair Sodium content Water erosion Carbonate content Low content of organic matter	0.22 0.68 0.68 0.88	Poor Slope 0.00
18: Bergquist-----	60	Fair Droughty Low content of organic matter	0.06 0.50	Poor Slope Depth to bedrock Cobble content 0.00 0.87 0.89
Rubble land-----	15	Not rated		Not rated
19: Bergquist-----	45	Fair Droughty Low content of organic matter	0.06 0.50	Poor Slope Depth to bedrock Cobble content 0.00 0.87 0.89
Softback-----	30	Fair Stone content Too acid Low content of organic matter	0.05 0.32 0.50	Poor Slope Stone content Cobble content Shrink-swell 0.00 0.36 0.86 0.99
20: Bergquist-----	55	Fair Droughty Low content of organic matter	0.06 0.50	Poor Slope Depth to bedrock Cobble content 0.00 0.87 0.89
Vitale-----	25	Poor Droughty Stone content Depth to bedrock Cobble content	0.00 0.00 0.35 0.81	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell 0.00 0.00 0.01 0.45 0.94
21: Bothwell-----	80	Fair Water erosion	0.90	Poor Low strength Shrink-swell 0.00 0.87
22: Bothwell-----	80	Fair Water erosion	0.90	Poor Low strength Slope Shrink-swell 0.00 0.32 0.87
23: Bothwell-----	35	Fair Water erosion	0.90	Poor Low strength Shrink-swell Slope 0.00 0.87 0.98



# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
23: Hades-----	30	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Low strength Slope	0.00 0.98
Justesen-----	20	Fair Carbonate content Water erosion	0.80 0.90	Poor Low strength Shrink-swell Slope	0.00 0.87 0.98
24: Bothwell-----	40	Fair Water erosion	0.90	Poor Low strength Shrink-swell	0.00 0.87
Thatcher-----	35	Fair Water erosion Low content of organic matter Carbonate content	0.68 0.88 0.92	Poor Low strength	0.00
25: Brifox-----	40	Poor Too clayey Carbonate content Low content of organic matter Water erosion	0.00 0.46 0.88 0.99	Poor Shrink-swell Low strength	0.00 0.00
Huffman-----	35	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Shrink-swell	0.00 0.87
26: Brifox-----	40	Poor Too clayey Carbonate content Low content of organic matter Water erosion	0.00 0.46 0.88 0.99	Poor Shrink-swell Low strength Slope	0.00 0.00 0.32
Huffman-----	35	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Slope Shrink-swell	0.00 0.32 0.87
27: Brifox-----	55	Poor Too clayey Carbonate content Low content of organic matter Water erosion	0.00 0.46 0.88 0.99	Poor Shrink-swell Low strength	0.00 0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
27: Niter-----	25	Poor Too clayey Low content of organic matter Carbonate content Water erosion	 0.00 0.18  0.80 0.99	Poor Shrink-swell Low strength	 0.00 0.00
28: Brifox-----	65	Poor Too clayey Carbonate content Low content of organic matter Water erosion	 0.00 0.46 0.88  0.99	Poor Shrink-swell Low strength Slope	 0.00 0.00 0.68
Niter-----	20	Poor Too clayey Low content of organic matter Carbonate content Water erosion	 0.00 0.18  0.80 0.99	Poor Shrink-swell Low strength Slope	 0.00 0.00 0.68
29: Brifox-----	55	Poor Too clayey Carbonate content Low content of organic matter Water erosion	 0.00 0.46 0.88  0.99	Poor Slope Shrink-swell Low strength	 0.00 0.00 0.00
Niter-----	25	Poor Too clayey Low content of organic matter Carbonate content Water erosion	 0.00 0.18  0.80 0.99	Poor Slope Shrink-swell Low strength	 0.00 0.00 0.00
30: Broadhead-----	30	Fair Too clayey	 0.05	Poor Low strength Shrink-swell	 0.00 0.12
Hades-----	25	Fair Low content of organic matter Too clayey	 0.88  0.98	Poor Low strength	 0.00
Yago-----	25	Poor Stone content Low content of organic matter Too acid Too clayey Cobble content	 0.00 0.88  0.95 0.98 0.99	Poor Stone content Low strength Cobble content Shrink-swell	 0.00 0.00 0.30 0.31
31: Broadhead-----	40	Fair Too clayey	 0.01	Poor Low strength Shrink-swell Slope	 0.00 0.12 0.98

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
31: Yago-----	35	Poor Stone content Low content of organic matter Too acid Too clayey Cobble content	 0.00 0.88  0.95 0.98 0.99	Poor Stone content Low strength Cobble content Shrink-swell Slope	 0.00 0.00 0.30 0.31 0.98
32: Camelback-----	55	Fair Low content of organic matter	 0.88	Poor Slope Shrink-swell	 0.00 0.97
Lonigan-----	25	Poor Droughty Depth to bedrock Carbonate content Low content of organic matter	 0.00 0.10 0.68 0.88	Poor Depth to bedrock Slope	 0.00 0.00
33: Camelback-----	40	Fair Low content of organic matter	 0.88	Poor Slope Shrink-swell	 0.00 0.97
Hades-----	20	Fair Low content of organic matter Too clayey	 0.88 0.98	Poor Slope Low strength	 0.00 0.00
Valmar-----	20	Poor Stone content Droughty Depth to bedrock Low content of organic matter	 0.00 0.00 0.10 0.88	Poor Depth to bedrock Stone content Slope Shrink-swell	 0.00 0.00 0.00 0.87
34: Cedarhill-----	90	Fair Droughty Carbonate content Low content of organic matter	 0.12 0.68 0.88	Fair Slope	 0.98
35: Cedarhill-----	40	Fair Droughty Carbonate content Low content of organic matter	 0.12 0.68 0.88	Poor Slope	 0.00
Hades-----	25	Fair Low content of organic matter Too clayey	 0.88 0.98	Poor Slope Low strength	 0.00 0.00
Ricrest-----	20	Fair Carbonate content	 0.46	Poor Slope Low strength Shrink-swell	 0.00 0.22 0.87

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
36: Cedarhill-----	35	Fair Droughty Carbonate content Low content of organic matter	0.12 0.68 0.88	Poor Slope	0.00
Hondoho-----	30	Fair Carbonate content Low content of organic matter	0.46 0.50	Poor Slope Shrink-swell	0.00 0.87
Ridgecrest-----	20	Poor Stone content Droughty Carbonate content Depth to bedrock	0.00 0.00 0.00 0.29	Poor Depth to bedrock Stone content Slope	0.00 0.00 0.00
37: Chesbrook-----	60	Poor Carbonate content Too clayey Too acid	0.00 0.12 0.32	Poor Low strength Wetness Shrink-swell	0.00 0.00 0.87
Bear Lake-----	20	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.68	Poor Wetness Low strength	0.00 0.00
38: Cloudless-----	50	Fair Water erosion Too clayey	0.99 0.99	Poor Low strength Shrink-swell	0.00 0.87
Hades-----	40	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Low strength	0.00
39: Cloudless-----	35	Fair Water erosion Too clayey	0.99 0.99	Poor Low strength Shrink-swell Slope	0.00 0.87 0.98
Hades-----	30	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Low strength Slope	0.00 0.98
Howcan-----	20	Fair Stone content Low content of organic matter	0.10 0.50	Fair Stone content Slope Cobble content	0.96 0.98 0.99
40: Copenhagen-----	35	Poor Droughty Depth to bedrock	0.00 0.00	Poor Depth to bedrock Slope	0.00 0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
40: Lonigan-----	30	Poor Droughty Carbonate content Depth to bedrock Low content of organic matter	 0.00 0.68 0.79 0.88	Poor Depth to bedrock Slope	 0.00 0.00
Manila-----	20	Fair Too clayey Water erosion	 0.08 0.99	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.53
41: Delish-----	40	Fair Low content of organic matter Water erosion	 0.12 0.68	Poor Low strength Wetness	 0.00 0.53
Cachecan-----	25	Poor Too alkaline Low content of organic matter Sodium content Water erosion	 0.00 0.12 0.40 0.68	Poor Low strength	 0.00
Stinkcreek-----	15	Poor Too alkaline Sodium content Low content of organic matter Too sandy Droughty Carbonate content Water erosion	 0.00 0.00 0.12 0.16 0.86 0.92 0.99	Poor Wetness	 0.00
42: Downata-----	80	Fair Too acid Carbonate content Too clayey	 0.32 0.46 0.98	Poor Wetness Low strength Shrink-swell	 0.00 0.00 0.90
43: Dranburn-----	45	Fair Too acid Too clayey	 0.32 0.95	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.94
Robin-----	35	Fair Low content of organic matter Water erosion	 0.50 0.90	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.87
44: Enochville-----	75	Fair Water erosion	 0.99	Poor Low strength Wetness Shrink-swell	 0.00 0.14 0.99

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
45: Foxol-----	45	Poor Stone content Droughty Depth to bedrock Too acid	 0.00 0.00 0.00 0.95	Poor Depth to bedrock Stone content Slope	 0.00 0.00 0.00
Vitale-----	30	Poor Droughty Stone content Depth to bedrock Cobble content	 0.00 0.00 0.35 0.81	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell	 0.00 0.00 0.01 0.45 0.94
46: Hades-----	35	Fair Low content of organic matter Too clayey	 0.88  0.98	Poor Slope Low strength	 0.00 0.00
Camelback-----	20	Fair Low content of organic matter	 0.88	Poor Slope Shrink-swell	 0.00 0.97
Hondoho-----	20	Fair Carbonate content Low content of organic matter	 0.46 0.50	Poor Slope Shrink-swell	 0.00 0.87
47: Hades-----	25	Fair Low content of organic matter Too clayey	 0.88  0.98	Poor Slope Low strength	 0.00 0.00
Lanoak-----	25	Fair Water erosion	 0.99	Poor Slope Low strength	 0.00 0.00
Camelback-----	25	Fair Low content of organic matter	 0.88	Poor Slope Shrink-swell	 0.00 0.97
48: Haploxerolls-----	45	Fair Droughty	 0.01	Poor Slope	 0.00
Xerorthents-----	30	Poor Droughty Depth to bedrock Low content of organic matter Carbonate content Cobble content	 0.00 0.00 0.50 0.88 0.96	Poor Depth to bedrock Slope	 0.00 0.00
49: Hendricks-----	90	Fair Water erosion Too clayey	 0.90 0.98	Poor Low strength Shrink-swell	 0.00 0.92

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
50: Holmes-----	90	Poor Too sandy Low content of organic matter Droughty Stone content	 0.00 0.12  0.25 0.57	Fair Stone content Cobble content	 0.90 0.99
51: Hondee-----	85	Fair Low content of organic matter Carbonate content Droughty	 0.50 0.68 0.77	Good	
52: Hondee-----	75	Fair Low content of organic matter Carbonate content Droughty	 0.50 0.68 0.77	Good	
53: Hondoho-----	50	Fair Carbonate content Low content of organic matter	 0.46 0.50	Fair Shrink-swell	 0.87
Hades-----	30	Fair Low content of organic matter Too clayey	 0.88 0.98	Poor Low strength	 0.00
54: Hondoho-----	50	Fair Carbonate content Low content of organic matter	 0.46 0.50	Fair Shrink-swell	 0.87
Ricrest-----	40	Fair Carbonate content	 0.46	Fair Low strength Shrink-swell	 0.22 0.87
55: Hondoho-----	35	Fair Carbonate content Low content of organic matter	 0.46 0.50	Poor Slope Shrink-swell	 0.00 0.87
Sprollow-----	30	Poor Carbonate content Droughty Low content of organic matter Stone content Cobble content Depth to bedrock	 0.00 0.81 0.88  0.88 0.99 0.99	Poor Depth to bedrock Slope Cobble content Stone content	 0.00 0.00 0.38 0.89

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
55: Hades-----	20	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Low strength Slope	0.00 0.68
56: Hondoho-----	45	Fair Carbonate content Low content of organic matter	0.46 0.50	Poor Slope Shrink-swell	0.00 0.87
Vitale-----	30	Poor Droughty Stone content Depth to bedrock Cobble content	0.00 0.00 0.35 0.81	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell	0.00 0.00 0.01 0.45 0.94
57: Huffman-----	80	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Shrink-swell	0.00 0.87
58: Huffman-----	80	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Shrink-swell	0.00 0.87
59: Huffman-----	45	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Shrink-swell	0.00 0.87
Dirtyhead-----	30	Poor Droughty Carbonate content Low content of organic matter Depth to bedrock	0.00 0.68 0.88 0.99	Poor Depth to bedrock	0.00
60: Huffman-----	35	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Shrink-swell	0.00 0.87
Harroun-----	30	Poor Droughty Depth to cemented pan Carbonate content	0.00 0.00 0.32	Poor Depth to cemented pan	0.00



# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill		
		Rating class and limiting features	Value	Rating class and limiting features	Value
60: Lanoak-----	25	Fair Water erosion	0.99	Poor Low strength	0.00
61: Huffman-----	45	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Poor Low strength Shrink-swell	0.00 0.87
Wursten-----	35	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Good	
62: Iphil-----	60	Fair Sodium content Water erosion Carbonate content Low content of organic matter	0.22 0.68 0.68 0.88	Good	
Lonigan-----	20	Poor Droughty Depth to bedrock Carbonate content Low content of organic matter	0.00 0.10 0.68 0.88	Poor Depth to bedrock	0.00
63: Ireland-----	50	Poor Droughty Depth to bedrock Carbonate content Cobble content Low content of organic matter Stone content	0.00 0.05 0.80 0.86 0.88 0.98	Poor Depth to bedrock Slope Cobble content	0.00 0.00 0.75
Polumar-----	25	Fair Stone content Droughty Cobble content Carbonate content Low content of organic matter	0.05 0.43 0.79 0.80 0.88	Poor Slope Cobble content Stone content Depth to bedrock	0.00 0.05 0.19 0.23
64: Kabear-----	50	Fair Water erosion	0.99	Good	
Staberg-----	25	Fair Droughty Depth to bedrock	0.82 0.99	Poor Depth to bedrock Cobble content	0.00 0.90
Copenhagen-----	15	Poor Droughty Depth to bedrock	0.00 0.00	Poor Depth to bedrock	0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
65: Kabear-----	50	Fair Water erosion	0.99	Fair Slope	0.32
Staberg-----	25	Fair Droughty Depth to bedrock	0.82 0.99	Poor Depth to bedrock Slope Cobble content	0.00 0.32 0.90
Copenhagen-----	15	Poor Droughty Depth to bedrock	0.00 0.00	Poor Depth to bedrock Slope	0.00 0.32
66: Kearns-----	80	Fair Water erosion	0.90	Poor Low strength	0.00
67: Kearnsar-----	60	Fair Carbonate content Low content of organic matter Water erosion Too clayey	0.68 0.88 0.90 0.98	Poor Low strength Shrink-swell	0.00 0.87
Battle Creek-----	25	Poor Too clayey Carbonate content Low content of organic matter	0.00 0.80 0.88	Poor Low strength Shrink-swell	0.00 0.39
68: Kidman-----	90	Fair Water erosion Low content of organic matter Carbonate content	0.37 0.50 0.80	Good	
69: Kidman-----	85	Fair Water erosion Low content of organic matter Carbonate content	0.37 0.50 0.80	Good	
70: Kidman-----	85	Fair Water erosion Low content of organic matter Carbonate content	0.37 0.50 0.80	Poor Slope	0.00
71: Kidman, wet-----	85	Fair Water erosion Low content of organic matter Carbonate content	0.37 0.50 0.80	Good	

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill		
		Rating class and limiting features	Value	Rating class and limiting features	Value
72: Kidman-----	45	Fair Water erosion Low content of organic matter Carbonate content	0.37 0.50 0.80	Good	
Sterling-----	30	Fair Carbonate content Droughty	0.68 0.99	Good	
73: Lando-----	75	Fair Water erosion Carbonate content Too clayey	0.68 0.80 0.98	Poor Low strength Shrink-swell	0.00 0.87
74: Lanoak-----	75	Fair Water erosion	0.99	Poor Low strength	0.00
75: Lanoak-----	75	Fair Water erosion	0.99	Poor Low strength	0.00
76: Lanoak-----	45	Fair Water erosion	0.99	Poor Low strength Slope	0.00 0.32
Broadhead-----	40	Fair Too clayey	0.05	Poor Low strength Shrink-swell Slope	0.00 0.12 0.32
77: Lanoak-----	35	Fair Water erosion	0.99	Poor Slope Low strength	0.00 0.00
Broadhead-----	30	Fair Too clayey	0.05	Poor Slope Low strength Shrink-swell	0.00 0.00 0.12
Hades-----	15	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Slope Low strength	0.00 0.00
78: Lanoak-----	40	Fair Water erosion	0.99	Poor Low strength	0.00
Hades-----	35	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Low strength	0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill		
		Rating class and limiting features	Value	Rating class and limiting features	Value
79: Lanoak-----	60	Fair Water erosion	0.99	Poor Low strength Slope	0.00 0.32
Thatcher-----	25	Fair Water erosion Low content of organic matter Carbonate content	0.68 0.88 0.92	Poor Low strength Slope	0.00 0.32
80: Layton-----	85	Poor Wind erosion Too sandy Low content of organic matter Droughty	0.00 0.00 0.50 0.84	Good	
81: Layton-----	80	Poor Too sandy Low content of organic matter Droughty	0.00 0.50 0.84	Good	
82: Lizdale-----	80	Poor Carbonate content Low content of organic matter Stone content	0.00 0.12 0.99	Poor Slope Stone content	0.00 0.79
83: Lizdale-----	55	Poor Carbonate content Low content of organic matter Stone content	0.00 0.12 0.99	Fair Slope Stone content	0.32 0.79
Searla-----	35	Fair Low content of organic matter Droughty Too clayey	0.12 0.97 0.98	Fair Slope	0.32
84: Logan-----	90	Poor Too alkaline Carbonate content Low content of organic matter Too acid Too clayey	0.00 0.01 0.12 0.32 0.76	Poor Wetness Low strength Shrink-swell	0.00 0.00 0.87

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
85: Lonigan-----	40	Poor Droughty Carbonate content Depth to bedrock Low content of organic matter	0.00 0.68 0.79 0.88	Poor Depth to bedrock Slope	0.00 0.00
Lizdale-----	40	Poor Carbonate content Low content of organic matter Stone content	0.00 0.12 0.99	Fair Stone content Slope	0.79 0.82
86: Lonigan-----	45	Poor Droughty Depth to bedrock Carbonate content Low content of organic matter	0.00 0.10 0.68 0.88	Poor Depth to bedrock Slope	0.00 0.00
Ricrest-----	30	Fair Carbonate content	0.46	Poor Slope Low strength Shrink-swell	0.00 0.22 0.87
87: Manila-----	85	Fair Too clayey Water erosion	0.08 0.99	Poor Low strength Shrink-swell	0.00 0.53
88: Manila-----	80	Fair Too clayey Water erosion	0.08 0.99	Poor Low strength Shrink-swell	0.00 0.53
89: Manila-----	85	Fair Too clayey Water erosion	0.08 0.99	Poor Low strength Slope Shrink-swell	0.00 0.32 0.53
90: Manila-----	50	Fair Too clayey Water erosion	0.08 0.99	Poor Low strength Shrink-swell	0.00 0.53
Bancroft-----	30	Fair Water erosion Carbonate content	0.37 0.80	Poor Low strength	0.00
91: Manila-----	50	Fair Too clayey Water erosion	0.08 0.99	Poor Low strength Shrink-swell	0.00 0.53
Broadhead-----	25	Fair Too clayey	0.05	Poor Low strength Shrink-swell	0.00 0.12

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
92: Manila-----	40	Fair Too clayey Water erosion	 0.08 0.99	Poor Low strength Slope Shrink-swell	 0.00 0.32 0.53
Broadhead-----	35	Fair Too clayey	 0.05	Poor Low strength Shrink-swell Slope	 0.00 0.12 0.32
93: Manila-----	50	Fair Too clayey Water erosion	 0.08 0.99	Poor Low strength Slope Shrink-swell	 0.00 0.08 0.53
Lonigan-----	30	Poor Droughty Carbonate content Depth to bedrock Low content of organic matter	 0.00 0.68 0.79 0.88	Poor Depth to bedrock Slope	 0.00 0.08
94: Manila-----	55	Fair Too clayey Water erosion	 0.08 0.99	Poor Low strength Shrink-swell	 0.00 0.53
Yeates Hollow-----	30	Poor Too clayey Low content of organic matter	 0.00 0.50	Fair Shrink-swell Cobble content Stone content	 0.23 0.43 0.93
95: Maplecreek-----	95	Fair Low content of organic matter Carbonate content Water erosion	 0.12 0.92 0.99	Fair Wetness	  0.98
96: Maplecreek-----	45	Fair Low content of organic matter Carbonate content Water erosion	 0.12 0.92 0.99	Fair Wetness	  0.98
Layton-----	35	Poor Wind erosion Too sandy Low content of organic matter Droughty	 0.00 0.00 0.50 0.84	Good	
97: Merkley-----	45	Fair Low content of organic matter Water erosion Carbonate content	 0.12 0.68 0.92	Good	

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
97: Lago-----	20	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.99	Poor Low strength Wetness Shrink-swell	0.00 0.76 0.99
Bear Lake-----	15	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.46 0.68	Poor Wetness Low strength	0.00 0.00
98: Moonlight-----	40	Fair Too acid	0.50	Poor Slope	0.00
Camelback-----	35	Fair Low content of organic matter	0.88	Poor Slope Shrink-swell	0.00 0.97
99: Niter-----	60	Poor Too clayey Low content of organic matter Carbonate content Water erosion	0.00 0.18 0.80 0.99	Poor Shrink-swell Low strength	0.00 0.00
Brifox-----	20	Poor Too clayey Carbonate content Low content of organic matter Water erosion	0.00 0.46 0.88 0.99	Poor Shrink-swell Low strength	0.00 0.00
100: Northwater-----	35	Poor Stone content Droughty Low content of organic matter	0.00 0.10 0.88	Poor Slope Stone content Depth to bedrock Cobble content	0.00 0.02 0.23 0.83
Foxol-----	25	Poor Stone content Droughty Depth to bedrock Too acid	0.00 0.00 0.00 0.95	Poor Depth to bedrock Slope Stone content	0.00 0.00 0.00
Vitale-----	20	Poor Droughty Stone content Depth to bedrock Cobble content	0.00 0.00 0.35 0.81	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell	0.00 0.00 0.01 0.45 0.94

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
101: Northwater-----	65	Fair Droughty Stone content Low content of organic matter	0.10 0.11 0.88	Poor Slope Stone content Cobble content	0.00 0.02 0.83
Povey-----	25	Good		Fair Slope	0.50
102: Northwater-----	65	Fair Droughty Stone content Low content of organic matter	0.10 0.11 0.88	Poor Slope Stone content Cobble content	0.00 0.02 0.83
Povey-----	15	Good		Poor Slope	0.00
103: Nyman-----	50	Fair Too acid Droughty Low content of organic matter Depth to bedrock Stone content No cobble limitation	0.50 0.56 0.88 0.95 0.99 0.99	Poor Depth to bedrock Slope Cobble content Stone content	0.00 0.00 0.64 0.99
Lonigan-----	20	Poor Droughty Depth to bedrock Carbonate content Low content of organic matter	0.00 0.10 0.68 0.88	Poor Depth to bedrock Slope	0.00 0.00
Copenhagen-----	15	Poor Droughty Depth to bedrock	0.00 0.00	Poor Depth to bedrock Slope	0.00 0.00
104: Oxford-----	45	Poor Too clayey Low content of organic matter Water erosion	0.00 0.88 0.99	Poor Low strength Shrink-swell	0.00 0.12
Banida-----	35	Poor Too clayey Low content of organic matter Water erosion	0.00 0.00 0.99	Poor Low strength Shrink-swell	0.00 0.12
105: Oxford-----	45	Poor Too clayey Low content of organic matter Water erosion	0.00 0.88 0.99	Poor Low strength Shrink-swell	0.00 0.12



# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
105: Banida-----	35	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.00 0.99	Poor Low strength Shrink-swell	 0.00 0.12
106: Oxford-----	50	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.88 0.99	Poor Low strength Shrink-swell Slope	 0.00 0.12 0.32
Banida-----	35	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.00 0.99	Poor Low strength Shrink-swell Slope	 0.00 0.12 0.32
107: Oxford-----	65	Poor Too clayey Low content of organic matter Water erosion	 0.00 0.88 0.99	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.12
Gullied land-----	15	Not rated		Not rated	
108: Parkay-----	45	Fair Too acid Low content of organic matter Too clayey	 0.50 0.50 0.98	Poor Slope Depth to bedrock Shrink-swell	 0.00 0.32 0.87
Povey-----	30	Good		Poor Slope	 0.00
109: Parleys-----	85	Fair Carbonate content Low content of organic matter Water erosion Too clayey	 0.80 0.88 0.90 0.98	Poor Low strength Shrink-swell	 0.00 0.97
110: Parleys-----	85	Fair Carbonate content Low content of organic matter Water erosion Too clayey	 0.80 0.88 0.90 0.98	Poor Low strength Shrink-swell	 0.00 0.97

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
111: Parleys, wet-----	90	Fair Carbonate content Low content of organic matter Water erosion Too clayey	 0.80 0.88  0.90 0.98	Poor Low strength Shrink-swell	 0.00 0.97
112: Pavohroo-----	30	Fair Too acid Low content of organic matter	 0.50 0.88	Poor Slope	 0.00
Sedgway-----	30	Fair Stone content Too acid Low content of organic matter Cobble content Too clayey	 0.25 0.50 0.50 0.98 0.99	Poor Slope Stone content Cobble content Shrink-swell	 0.00 0.38 0.47 0.97
Toponce-----	20	Poor Too clayey Too acid Water erosion	 0.00 0.95 0.99	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.17
113: Picabo-----	45	Poor Carbonate content Sodium content Water erosion Low content of organic matter	 0.00 0.00 0.37 0.50	Fair Low strength	 0.78
Thatcherflats-----	30	Poor Sodium content Too alkaline Low content of organic matter Water erosion	 0.00 0.00 0.12 0.37	Poor Low strength Shrink-swell	 0.00 0.12
114: Pits, gravel-----	100	Not rated		Not rated	
115: Pollynot-----	75	Fair Low content of organic matter Water erosion Carbonate content	 0.12 0.68 0.92	Poor Low strength	 0.00
116: Pollynot-----	75	Fair Low content of organic matter Water erosion Carbonate content	 0.12 0.68 0.92	Poor Low strength	 0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill		
		Rating class and limiting features	Value	Rating class and limiting features	Value
117: Pollynot-----	75	Fair Low content of organic matter Water erosion Carbonate content	0.12 0.68 0.92	Poor Low strength	0.00
118: Pollynot-----	75	Fair Low content of organic matter Water erosion Carbonate content	0.12 0.68 0.92	Poor Low strength	0.00
119: Polumar-----	45	Fair Stone content Droughty Cobble content Carbonate content Low content of organic matter	0.05 0.43 0.79 0.80 0.88	Poor Slope Cobble content Stone content Depth to bedrock	0.00 0.05 0.19 0.23
Ireland-----	30	Poor Droughty Depth to bedrock Carbonate content Cobble content Low content of organic matter Stone content	0.00 0.05 0.80 0.86 0.88 0.98	Poor Depth to bedrock Slope Cobble content	0.00 0.00 0.75
120: Polumar-----	30	Fair Stone content Droughty Cobble content Carbonate content Low content of organic matter	0.05 0.43 0.79 0.80 0.88	Poor Slope Cobble content Stone content Depth to bedrock	0.00 0.05 0.19 0.23
Sprollo-----	30	Poor Carbonate content Droughty Low content of organic matter Stone content Cobble content Depth to bedrock	0.00 0.81 0.88 0.88 0.99 0.99	Poor Depth to bedrock Slope Cobble content Stone content	0.00 0.00 0.38 0.89
Ireland-----	20	Poor Droughty Depth to bedrock Carbonate content Cobble content Low content of organic matter Stone content	0.00 0.05 0.80 0.86 0.88 0.98	Poor Depth to bedrock Slope Cobble content	0.00 0.00 0.75

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
121: Povey-----	35	Good		Poor Slope	0.00
Hades-----	30	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Slope Low strength	0.00 0.00
Hondoho-----	15	Fair Carbonate content Low content of organic matter	0.46 0.50	Poor Slope Shrink-swell	0.00 0.87
122: Povey-----	45	Good		Poor Slope	0.00
Parkay-----	30	Fair Too acid Low content of organic matter Too clayey	0.50 0.50 0.98	Poor Slope Depth to bedrock Shrink-swell	0.00 0.32 0.87
123: Preston-----	90	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.77	Good	
124: Preston-----	90	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.77	Good	
125: Preston-----	85	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.77	Fair Slope	0.82
126: Preston-----	55	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.77	Poor Slope	0.00

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
126: Xerorthents-----	20	Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.00
		Low content of organic matter	0.50		
		Carbonate content	0.88		
		Cobble content	0.96		
127: Ricrest-----	90	Fair		Fair	
		Carbonate content	0.46	Low strength	0.22
				Shrink-swell	0.87
128: Sanyon-----	30	Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.00
		Low content of organic matter	0.88		
Staberg-----	30	Fair		Poor	
		Droughty	0.82	Depth to bedrock	0.00
		Depth to bedrock	0.99	Slope	0.00
				Cobble content	0.90
Kabear-----	20	Fair		Poor	
		Water erosion	0.99	Slope	0.00
129: Smidale-----	85	Fair		Poor	
		Too acid	0.32	Slope	0.00
		Cobble content	0.92	Cobble content	0.18
130: Smidale-----	45	Fair		Poor	
		Too acid	0.32	Slope	0.00
		Cobble content	0.92	Cobble content	0.18
Staberg-----	40	Fair		Poor	
		Droughty	0.82	Depth to bedrock	0.00
		Depth to bedrock	0.99	Slope	0.00
				Cobble content	0.90
131: Sprollo-----	45	Poor		Poor	
		Carbonate content	0.00	Depth to bedrock	0.00
		Droughty	0.81	Slope	0.00
		Low content of organic matter	0.88	Cobble content	0.38
		Stone content	0.88	Stone content	0.89
		Cobble content	0.99		
		Depth to bedrock	0.99		
Hondoho-----	35	Fair		Poor	
		Carbonate content	0.46	Slope	0.00
		Low content of organic matter	0.50	Shrink-swell	0.87

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
132: Sprollo-----	40	Poor Carbonate content Droughty Low content of organic matter Stone content Cobble content Depth to bedrock	0.00 0.81 0.88 0.88 0.99 0.99	Poor Depth to bedrock Slope Cobble content Stone content	0.00 0.00 0.38 0.89
Hymas-----	35	Poor Droughty Carbonate content Depth to bedrock Stone content	0.00 0.00 0.00 0.71	Poor Depth to bedrock Slope Stone content	0.00 0.00 0.99
133: Sterling-----	85	Fair Carbonate content Droughty	0.68 0.99	Good	
134: Sterling-----	85	Fair Carbonate content Droughty	0.68 0.99	Good	
135: Sterling-----	90	Fair Carbonate content Droughty	0.68 0.99	Good	
136: Sterling-----	85	Fair Carbonate content Droughty	0.68 0.99	Poor Slope	0.00
137: Sterling-----	50	Fair Carbonate content Droughty	0.68 0.99	Good	
Parleys-----	30	Fair Carbonate content Low content of organic matter Water erosion Too clayey	0.80 0.88 0.90 0.98	Poor Low strength Shrink-swell	0.00 0.97
138: Thatcher-----	45	Fair Water erosion Carbonate content Too clayey	0.68 0.92 0.95	Poor Low strength	0.00
Bearhollow-----	35	Fair Low content of organic matter Sodium content Carbonate content	0.12 0.78 0.92	Good	

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
139: Toponce-----	50	Poor Too clayey Too acid Water erosion	 0.00 0.95 0.99	Poor Low strength Shrink-swell Slope	 0.00 0.17 0.82
Broadhead-----	30	Fair Too clayey	 0.05	Poor Low strength Shrink-swell Slope	 0.00 0.12 0.82
140: Trenton-----	50	Poor Too alkaline Carbonate content Too clayey Water erosion	 0.00 0.68 0.88 0.99	Poor Low strength Shrink-swell	 0.00 0.45
Battle Creek-----	40	Poor Too clayey Carbonate content Low content of organic matter	 0.00 0.80 0.88	Poor Low strength Shrink-swell	 0.00 0.39
141: Trenton, cool-----	50	Poor Too alkaline Carbonate content Too clayey Water erosion	 0.00 0.68 0.88 0.99	Poor Low strength Shrink-swell	 0.00 0.45
Battle Creek, cool--	40	Poor Too clayey Carbonate content Low content of organic matter	 0.00 0.80 0.88	Poor Low strength Shrink-swell	 0.00 0.39
142: Trenton-----	45	Poor Too alkaline Carbonate content Too clayey Water erosion	 0.00 0.68 0.88 0.99	Poor Low strength Shrink-swell	 0.00 0.45
Parleys-----	35	Fair Carbonate content Low content of organic matter Water erosion Too clayey	 0.80 0.88 0.90 0.98	Poor Low strength Shrink-swell	 0.00 0.97
143: Valmar-----	40	Poor Stone content Droughty Depth to bedrock Low content of organic matter	 0.00 0.00 0.10 0.88	Poor Depth to bedrock Slope Stone content Shrink-swell	 0.00 0.00 0.00 0.87

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
143: Camelback-----	25	Fair Low content of organic matter	0.88	Poor Slope Shrink-swell	0.00 0.97
Hades-----	20	Fair Low content of organic matter Too clayey	0.88 0.98	Poor Slope Low strength	0.00 0.00
144: Vitale-----	40	Poor Droughty Stone content Depth to bedrock Cobble content	0.00 0.00 0.35 0.81	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell	0.00 0.00 0.01 0.45 0.94
Bergquist-----	25	Fair Droughty Low content of organic matter	0.06 0.50	Poor Slope Depth to bedrock Cobble content	0.00 0.87 0.89
Rock outcrop-----	15	Not rated		Not rated	
145: Vitale-----	35	Poor Droughty Stone content Depth to bedrock Cobble content	0.00 0.00 0.01 0.51	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell	0.00 0.00 0.01 0.45 0.87
Yeates Hollow-----	25	Poor Too clayey Low content of organic matter	0.00 0.50	Fair Shrink-swell Cobble content Stone content Slope	0.23 0.43 0.93 0.98
Northwater-----	15	Poor Stone content Droughty Low content of organic matter	0.00 0.10 0.88	Poor Slope Stone content Depth to bedrock Cobble content	0.00 0.02 0.23 0.83
146: Welby-----	90	Poor Sodium content Carbonate content Water erosion	0.00 0.68 0.90	Fair Low strength	0.22
147: Welby-----	90	Poor Sodium content Carbonate content Water erosion	0.00 0.68 0.90	Fair Low strength	0.22



# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
148: Welby, wet-----	85	Fair Water erosion Carbonate content Sodium content	 0.37 0.46 0.97	Fair Low strength	  0.22
149: Collinston-----	40	Fair Carbonate content Low content of organic matter Water erosion	 0.08 0.88 0.90	Poor Low strength Shrink-swell	 0.00 0.87
Wheelon-----	40	Fair Carbonate content Sodium content Low content of organic matter Water erosion	 0.46 0.60 0.88 0.90	Poor Low strength Shrink-swell	 0.00 0.87
150: Wheelon-----	40	Fair Carbonate content Sodium content Low content of organic matter Water erosion	 0.46 0.60 0.88 0.90	Poor Low strength Shrink-swell Slope	 0.00 0.87 0.98
Collinston-----	35	Fair Carbonate content Low content of organic matter Water erosion	 0.08 0.88 0.90	Poor Low strength Shrink-swell Slope	 0.00 0.87 0.98
151: Wheelon-----	45	Fair Carbonate content Sodium content Low content of organic matter Water erosion	 0.46 0.60 0.88 0.90	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.87
Collinston-----	30	Fair Carbonate content Low content of organic matter Water erosion	 0.08 0.88 0.90	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.87
152: Windernot-----	40	Poor Too sandy Droughty Low content of organic matter Carbonate content	 0.00 0.00 0.50 0.92	Good	
Lewnot-----	20	Not rated		Fair Wetness	 0.98

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
152: Stinkcreek-----	15	Poor Too alkaline Sodium content Low content of organic matter Too sandy Droughty Carbonate content Water erosion	 0.00 0.00 0.12  0.16 0.86 0.92 0.99	Poor Wetness	 0.00
153: Winn-----	90	Fair Water erosion	 0.90	Good	
154: Winwell-----	80	Poor Too clayey Too alkaline Low content of organic matter Carbonate content Water erosion	 0.00 0.00 0.12  0.32 0.90	Poor Low strength	 0.00
155: Winwell-----	45	Poor Too clayey Too alkaline Low content of organic matter Carbonate content Water erosion	 0.00 0.00 0.12  0.32 0.90	Poor Low strength	 0.00
Collinston-----	35	Fair Carbonate content Low content of organic matter Water erosion	 0.08 0.88  0.90	Poor Low strength Shrink-swell	 0.00 0.87
156: Wormcreek-----	50	Fair Carbonate content Cobble content Low content of organic matter Droughty	 0.46 0.87 0.88  0.88	Poor Slope Cobble content Depth to bedrock	 0.00 0.20 0.39
Copenhagen-----	30	Poor Droughty Depth to bedrock	 0.00 0.00	Poor Depth to bedrock Slope	 0.00 0.00
157: Wormcreek-----	45	Fair Carbonate content Cobble content Low content of organic matter Droughty	 0.46 0.87 0.88  0.88	Poor Slope Cobble content Depth to bedrock	 0.00 0.20 0.39

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material		Potential as a source of roadfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value
157: Lonigan-----	35	Poor Droughty Depth to bedrock Carbonate content Low content of organic matter	0.00 0.10 0.68 0.88	Poor Depth to bedrock Slope	0.00 0.00
158: Wursten-----	45	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.80 0.99	Fair Slope	0.32
Dirtyhead-----	35	Poor Droughty Carbonate content Low content of organic matter Depth to bedrock	0.00 0.68 0.88 0.99	Poor Depth to bedrock Slope	0.00 0.32
159: Xerochrepts-----	30	Fair Low content of organic matter Carbonate content Water erosion	0.12 0.88 0.99	Poor Slope Low strength	0.00 0.78
Wormcreek-----	25	Fair Carbonate content Cobble content Low content of organic matter Droughty	0.46 0.87 0.88 0.88	Poor Slope Cobble content Depth to bedrock	0.00 0.20 0.39
Xerorthents-----	20	Poor Droughty Depth to bedrock Low content of organic matter Carbonate content Cobble content	0.00 0.00 0.50 0.88 0.96	Poor Depth to bedrock Slope	0.00 0.00
160: Xerorthents-----	75	Poor Droughty Depth to bedrock Low content of organic matter Carbonate content Cobble content	0.00 0.00 0.50 0.88 0.96	Poor Depth to bedrock Slope	0.00 0.00
161: Yeates Hollow-----	85	Poor Too clayey Low content of organic matter	0.00 0.50	Fair Slope Shrink-swell Cobble content Stone content	0.02 0.23 0.43 0.93

# Soil Survey of Franklin County Area, Idaho

Table 18.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential as a source of reclamation material	Potential as a source of roadfill		
		Rating class and limiting features	Value	Rating class and limiting features	Value
162: Yeates Hollow-----	40	Poor Too clayey Low content of organic matter	0.00 0.50	Poor Slope Shrink-swell Cobble content Stone content	0.00 0.23 0.43 0.93
Manila-----	25	Fair Too clayey Water erosion	0.08 0.99	Poor Low strength Slope Shrink-swell	0.00 0.32 0.53
Softback-----	15	Fair Stone content Too acid Low content of organic matter	0.05 0.32 0.50	Poor Slope Stone content Cobble content Shrink-swell	0.00 0.36 0.86 0.99
163: Yeates Hollow-----	45	Poor Too clayey Low content of organic matter	0.00 0.50	Poor Slope Shrink-swell Cobble content Stone content	0.00 0.23 0.43 0.93
Vitale-----	35	Poor Droughty Stone content Depth to bedrock Cobble content	0.00 0.00 0.21 0.67	Poor Depth to bedrock Slope Stone content Cobble content Shrink-swell	0.00 0.00 0.01 0.45 0.87
164: Water-----	100	Not rated		Not rated	

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Airport-----	80	Not limited		Very limited Piping Salinity Depth to saturated zone	1.00 1.00 0.86	Very limited Slow refill Salinity and saturated zone Cutbanks cave Depth to saturated zone	1.00 1.00 0.10 0.06
2: Ant Flat-----	85	Not limited		Somewhat limited Hard to pack	0.30	Very limited Depth to water	1.00
3: Ant Flat-----	85	Not limited		Somewhat limited Hard to pack	0.30	Very limited Depth to water	1.00
4: Ant Flat-----	90	Not limited		Somewhat limited Hard to pack	0.30	Very limited Depth to water	1.00
5: Ant Flat-----	65	Not limited		Somewhat limited Hard to pack	0.30	Very limited Depth to water	1.00
Oxford-----	25	Not limited		Very limited Hard to pack	0.99	Very limited Depth to water	1.00
6: Ant Flat-----	50	Somewhat limited Slope	0.04	Somewhat limited Hard to pack	0.30	Very limited Depth to water	1.00
Oxford-----	35	Somewhat limited Slope	0.04	Very limited Hard to pack	0.99	Very limited Depth to water	1.00
7: Arbone-----	80	Very limited Seepage	1.00	Somewhat limited Seepage	0.01	Very limited Depth to water	1.00
8: Banida-----	85	Not limited		Somewhat limited Hard to pack	0.81	Very limited Depth to water	1.00
9: Banida-----	80	Not limited		Somewhat limited Hard to pack	0.81	Very limited Depth to water	1.00
10: Battle Creek-----	85	Not limited		Somewhat limited Hard to pack	0.77	Very limited Slow refill Depth to saturated zone Cutbanks cave	1.00 0.99 0.10

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
11: Battle Creek-----	85	Not limited		Somewhat limited Hard to pack	0.77	Very limited Slow refill Depth to saturated zone Cutbanks cave	1.00 0.99 0.10
12: Battle Creek-----	95	Not limited		Somewhat limited Hard to pack	0.77	Very limited Depth to water	1.00
13: Bear Lake-----	40	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Somewhat limited Cutbanks cave	0.10
Chesbrook-----	30	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave	0.28 0.10
Picabo-----	15	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 0.43	Somewhat limited Slow refill Depth to saturated zone Cutbanks cave	0.28 0.25 0.10
14: Bear Lake-----	50	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Cutbanks cave	0.10
Downata-----	35	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Piping	1.00 1.00 0.01	Somewhat limited Cutbanks cave	0.10
15: Bear Lake-----	50	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Cutbanks cave	0.10
Downata-----	25	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Piping	1.00 1.00 0.01	Somewhat limited Cutbanks cave	0.10
Thatcherflats-----	20	Not limited		Very limited Piping Depth to saturated zone	1.00 0.09	Very limited Slow refill Depth to saturated zone Cutbanks cave Salinity and saturated zone	1.00 0.54 0.10 0.06

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
16: Bear Lake-----	65	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Cutbanks cave	0.10
Lago-----	30	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Piping	0.95 0.37	Somewhat limited Cutbanks cave Depth to saturated zone	0.10 0.02
17: Bearhollow-----	30	Somewhat limited Seepage Slope	0.72 0.41	Somewhat limited Piping	0.22	Very limited Depth to water	1.00
Brifox-----	25	Somewhat limited Slope	0.41	Somewhat limited Hard to pack	0.93	Very limited Depth to water	1.00
Iphil-----	20	Somewhat limited Seepage Slope	0.72 0.28	Very limited Piping	1.00	Very limited Depth to water	1.00
18: Bergquist-----	60	Very limited Seepage Slope Depth to bedrock	1.00 1.00 0.03	Somewhat limited Seepage Thin layer	0.57 0.03	Very limited Depth to water	1.00
Rubble land-----	15	Very limited Slope	1.00	Not rated		Not rated	
19: Bergquist-----	45	Very limited Seepage Slope Depth to bedrock	1.00 0.97 0.03	Somewhat limited Seepage Thin layer	0.57 0.03	Very limited Depth to water	1.00
Softback-----	30	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Content of large stones Seepage	0.12 0.05	Very limited Depth to water	1.00
20: Bergquist-----	55	Very limited Seepage Slope Depth to bedrock	1.00 0.82 0.03	Somewhat limited Seepage Thin layer	0.57 0.03	Very limited Depth to water	1.00
Vitale-----	25	Somewhat limited Depth to bedrock Slope Seepage	0.91 0.82 0.04	Very limited Content of large stones Thin layer	1.00 0.91	Very limited Depth to water	1.00
21: Bothwell-----	80	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
22: Bothwell-----	80	Somewhat limited Seepage Slope	0.72 0.15	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
23: Bothwell-----	35	Somewhat limited Seepage Slope	0.72 0.04	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
Hades-----	30	Somewhat limited Slope Seepage	0.04 0.04	Not limited		Very limited Depth to water	1.00
Justesen-----	20	Somewhat limited Slope Seepage	0.04 0.04	Somewhat limited Piping	0.18	Very limited Depth to water	1.00
24: Bothwell-----	40	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
Thatcher-----	35	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.63	Very limited Depth to water	1.00
25: Brifox-----	40	Not limited		Somewhat limited Hard to pack	0.93	Very limited Depth to water	1.00
Huffman-----	35	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
26: Brifox-----	40	Somewhat limited Slope	0.15	Somewhat limited Hard to pack	0.93	Very limited Depth to water	1.00
Huffman-----	35	Somewhat limited Seepage Slope	0.72 0.15	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
27: Brifox-----	55	Not limited		Somewhat limited Hard to pack	0.93	Very limited Depth to water	1.00
Niter-----	25	Not limited		Somewhat limited Hard to pack	0.69	Very limited Depth to water	1.00
28: Brifox-----	65	Somewhat limited Slope	0.10	Somewhat limited Hard to pack	0.93	Very limited Depth to water	1.00
Niter-----	20	Somewhat limited Slope	0.10	Somewhat limited Hard to pack	0.69	Very limited Depth to water	1.00
29: Brifox-----	55	Somewhat limited Slope	0.50	Somewhat limited Hard to pack	0.93	Very limited Depth to water	1.00
Niter-----	25	Somewhat limited Slope	0.50	Somewhat limited Hard to pack	0.69	Very limited Depth to water	1.00



# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
30: Broadhead-----	30	Somewhat limited Slope	0.01	Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
Hades-----	25	Somewhat limited Seepage Slope	0.04 0.01	Not limited		Very limited Depth to water	1.00
Yago-----	25	Somewhat limited Seepage Seepage	0.04 0.01	Very limited Content of large stones	1.00	Very limited Depth to water	1.00
31: Broadhead-----	40	Somewhat limited Slope	0.04	Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
Yago-----	35	Somewhat limited Slope Seepage	0.04 0.04	Very limited Content of large stones	1.00	Very limited Depth to water	1.00
32: Camelback-----	55	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Seepage	0.12	Very limited Depth to water	1.00
Lonigan-----	25	Very limited Seepage Slope Depth to bedrock	1.00 0.72 0.30	Somewhat limited Thin layer	0.98	Very limited Depth to water	1.00
33: Camelback-----	40	Somewhat limited Seepage Slope	0.72 0.28	Somewhat limited Seepage	0.12	Very limited Depth to water	1.00
Hades-----	20	Somewhat limited Slope Seepage	0.28 0.04	Not limited		Very limited Depth to water	1.00
Valmar-----	20	Somewhat limited Depth to bedrock Seepage Slope	0.98 0.72 0.28	Very limited Content of large stones Thin layer	1.00 0.98	Very limited Depth to water	1.00
34: Cedarhill-----	90	Very limited Seepage Slope	1.00 0.04	Not limited		Very limited Depth to water	1.00
35: Cedarhill-----	40	Very limited Seepage Slope	1.00 0.72	Not limited		Very limited Depth to water	1.00
Hades-----	25	Somewhat limited Slope Seepage	0.72 0.04	Not limited		Very limited Depth to water	1.00
Ricrest-----	20	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Piping	0.20	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
36: Cedarhill-----	35	Very limited Seepage Slope	1.00 0.72	Not limited		Very limited Depth to water	1.00
Hondoho-----	30	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
Ridgecrest-----	20	Somewhat limited Depth to bedrock Seepage Slope	0.93 0.72 0.72	Very limited Content of large stones Thin layer Seepage	1.00  0.93 0.03	Very limited Depth to water	1.00
37: Chesbrook-----	60	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave	0.28 0.10
Bear Lake-----	20	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Cutbanks cave	0.10
38: Cloudless-----	50	Somewhat limited Seepage	0.04	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
Hades-----	40	Somewhat limited Seepage	0.04	Not limited		Very limited Depth to water	1.00
39: Cloudless-----	35	Somewhat limited Slope Seepage	0.04 0.04	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
Hades-----	30	Somewhat limited Slope Seepage	0.04 0.04	Not limited		Very limited Depth to water	1.00
Howcan-----	20	Somewhat limited Seepage Slope	0.72 0.04	Not limited		Very limited Depth to water	1.00
40: Copenhagen-----	35	Very limited Depth to bedrock Slope	1.00 0.55	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
Lonigan-----	30	Very limited Seepage Slope Depth to bedrock	1.00 0.55 0.06	Somewhat limited Thin layer	0.77	Very limited Depth to water	1.00
Manila-----	20	Somewhat limited Seepage Slope	0.72 0.55	Not limited		Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41: Delish-----	40	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Piping	0.99 0.90	Somewhat limited Slow refill Cutbanks cave Depth to saturated zone	0.28 0.10 0.01
Cachecan-----	25	Very limited Seepage	1.00	Somewhat limited Piping Depth to saturated zone	0.65 0.43	Somewhat limited Slow refill Depth to saturated zone Cutbanks cave	0.46 0.25 0.10
Stinkcreek-----	15	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.86	Very limited Cutbanks cave	1.00
42: Downata-----	80	Somewhat limited Seepage	0.72	Very limited Depth to saturated zone Ponding Piping	1.00 1.00 0.01	Somewhat limited Cutbanks cave	0.10
43: Dranburn-----	45	Somewhat limited Seepage Slope	0.54 0.50	Somewhat limited Piping	0.01	Very limited Depth to water	1.00
Robin-----	35	Somewhat limited Seepage Slope	0.72 0.50	Somewhat limited Piping	0.07	Very limited Depth to water	1.00
44: Enochville-----	75	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 0.55 0.03	Very limited Cutbanks cave	1.00
45: Foxol-----	45	Very limited Depth to bedrock Slope	1.00 0.82	Very limited Content of large stones Thin layer	1.00 1.00	Very limited Depth to water	1.00
Vitale-----	30	Somewhat limited Depth to bedrock Slope Seepage	0.91 0.82 0.04	Very limited Content of large stones Thin layer	1.00 0.91	Very limited Depth to water	1.00
46: Hades-----	35	Somewhat limited Slope Seepage	0.97 0.04	Not limited		Very limited Depth to water	1.00
Camelback-----	20	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.12	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
46: Hondoho-----	20	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
47: Hades-----	25	Somewhat limited Slope Seepage	0.72 0.04	Not limited		Very limited Depth to water	1.00
Lanoak-----	25	Somewhat limited Seepage Slope	0.72 0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
Camelback-----	25	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Seepage	0.12	Very limited Depth to water	1.00
48: Haploxerolls-----	45	Very limited Seepage Slope	1.00 0.88	Not limited		Very limited Depth to water	1.00
Xerorthents-----	30	Somewhat limited Slope Depth to bedrock	0.97 0.80	Very limited Thin layer Seepage Content of large stones	1.00 0.65 0.04	Very limited Depth to water	1.00
49: Hendricks-----	90	Somewhat limited Seepage	0.04	Not limited		Very limited Depth to water	1.00
50: Holmes-----	90	Very limited Seepage	1.00	Somewhat limited Seepage	0.43	Very limited Depth to water	1.00
51: Hondee-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.18	Very limited Depth to water	1.00
52: Hondee-----	75	Very limited Seepage	1.00	Somewhat limited Seepage	0.18	Very limited Depth to water	1.00
53: Hondoho-----	50	Somewhat limited Seepage	0.72	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
Hades-----	30	Somewhat limited Seepage	0.04	Not limited		Very limited Depth to water	1.00
54: Hondoho-----	50	Somewhat limited Seepage Slope	0.72 0.01	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
Ricrest-----	40	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.20	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
55: Hondoho-----	35	Somewhat limited Seepage Slope	0.72 0.55	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
Sprollo-----	30	Somewhat limited Seepage Slope Depth to bedrock	0.72 0.72 0.52	Somewhat limited Thin layer Content of large stones	0.52 0.26	Very limited Depth to water	1.00
Hades-----	20	Somewhat limited Slope Seepage	0.10 0.04	Not limited		Very limited Depth to water	1.00
56: Hondoho-----	45	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
Vitale-----	30	Somewhat limited Depth to bedrock Slope Seepage	0.91 0.72 0.04	Very limited Content of large stones Thin layer	1.00 0.91	Very limited Depth to water	1.00
57: Huffman-----	80	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
58: Huffman-----	80	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
59: Huffman-----	45	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
Dirtyhead-----	30	Somewhat limited Seepage Depth to bedrock	0.72 0.02	Somewhat limited Thin layer Seepage	0.56 0.22	Very limited Depth to water	1.00
60: Huffman-----	35	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
Harroun-----	30	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage	1.00 0.03	Very limited Depth to water	1.00
Lanoak-----	25	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
61: Huffman-----	45	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.03	Very limited Depth to water	1.00
Wursten-----	35	Very limited Seepage	1.00	Somewhat limited Piping	0.60	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62: Iphil-----	60	Somewhat limited Seepage Slope	0.72 0.02	Very limited Piping	1.00	Very limited Depth to water	1.00
Lonigan-----	20	Very limited Seepage Depth to bedrock Slope	1.00 0.30 0.02	Somewhat limited Thin layer	0.98	Very limited Depth to water	1.00
63: Ireland-----	50	Somewhat limited Depth to bedrock Slope Seepage	0.99 0.88 0.72	Somewhat limited Thin layer Content of large stones	0.99 0.52	Very limited Depth to water	1.00
Polumar-----	25	Somewhat limited Slope Seepage Depth to bedrock	0.88 0.72 0.22	Somewhat limited Content of large stones Thin layer	0.88 0.22	Very limited Depth to water	1.00
64: Kabear-----	50	Very limited Seepage	1.00	Not limited		Very limited Depth to water	1.00
Staberg-----	25	Very limited Seepage Depth to bedrock	1.00 0.02	Somewhat limited Piping Thin layer Seepage	0.95 0.56 0.03	Very limited Depth to water	1.00
Copenhagen-----	15	Very limited Depth to bedrock	1.00	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
65: Kabear-----	50	Very limited Seepage Slope	1.00 0.15	Not limited		Very limited Depth to water	1.00
Staberg-----	25	Very limited Seepage Slope Depth to bedrock	1.00 0.15 0.02	Somewhat limited Piping Thin layer Seepage	0.95 0.56 0.03	Very limited Depth to water	1.00
Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 0.15	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
66: Kearns-----	80	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.82	Very limited Depth to water	1.00
67: Kearnsar-----	60	Somewhat limited Seepage	0.54	Somewhat limited Piping	0.03	Somewhat limited Depth to saturated zone Slow refill Cutbanks cave	0.99 0.46 0.10

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
67: Battle Creek-----	25	Not limited		Somewhat limited Hard to pack	0.77	Very limited Slow refill Depth to saturated zone Cutbanks cave	1.00 0.99 0.10
68: Kidman-----	90	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
69: Kidman-----	85	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
70: Kidman-----	85	Somewhat limited Seepage Slope	0.72 0.50	Very limited Piping	1.00	Very limited Depth to water	1.00
71: Kidman, wet-----	85	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Somewhat limited Depth to saturated zone Slow refill Cutbanks cave	0.99 0.28 0.10
72: Kidman-----	45	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
Sterling-----	30	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
73: Lando-----	75	Not limited		Somewhat limited Depth to saturated zone	0.43	Very limited Slow refill Depth to saturated zone Cutbanks cave	1.00 0.25 0.10
74: Lanoak-----	75	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
75: Lanoak-----	75	Somewhat limited Seepage	0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
76: Lanoak-----	45	Somewhat limited Seepage Slope	0.72 0.15	Very limited Piping	1.00	Very limited Depth to water	1.00
Broadhead-----	40	Somewhat limited Slope	0.15	Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
77: Lanoak-----	35	Somewhat limited Slope Seepage	0.82 0.72	Very limited Piping	1.00	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77: Broadhead-----	30	Somewhat limited Slope	0.82	Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
Hades-----	15	Somewhat limited Slope Seepage	0.94 0.04	Not limited		Very limited Depth to water	1.00
78: Lanoak-----	40	Somewhat limited Seepage Slope	0.72 0.01	Very limited Piping	1.00	Very limited Depth to water	1.00
Hades-----	35	Somewhat limited Seepage Slope	0.04 0.01	Not limited		Very limited Depth to water	1.00
79: Lanoak-----	60	Somewhat limited Seepage Slope	0.72 0.15	Very limited Piping	1.00	Very limited Depth to water	1.00
Thatcher-----	25	Somewhat limited Seepage Slope	0.72 0.15	Somewhat limited Piping	0.63	Very limited Depth to water	1.00
80: Layton-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.10	Very limited Cutbanks cave Depth to saturated zone	1.00 0.90
81: Layton-----	80	Very limited Seepage	1.00	Somewhat limited Seepage	0.10	Very limited Cutbanks cave Depth to saturated zone	1.00 0.90
82: Lizdale-----	80	Very limited Seepage Slope	1.00 0.97	Somewhat limited Seepage	0.43	Very limited Depth to water	1.00
83: Lizdale-----	55	Very limited Seepage Slope	1.00 0.15	Somewhat limited Seepage	0.43	Very limited Depth to water	1.00
Searla-----	35	Somewhat limited Seepage Slope	0.72 0.15	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
84: Logan-----	90	Somewhat limited Seepage	0.02	Very limited Depth to saturated zone Piping	1.00 0.60	Somewhat limited Slow refill Cutbanks cave	0.98 0.10



# Soil Survey of Franklin County Area, Idaho

## Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
85: Lonigan-----	40	Very limited Seepage Slope Depth to bedrock	1.00 0.32 0.06	Somewhat limited Thin layer	0.77	Very limited Depth to water	1.00
Lizdale-----	40	Very limited Seepage Slope	1.00 0.08	Somewhat limited Seepage	0.43	Very limited Depth to water	1.00
86: Lonigan-----	45	Very limited Seepage Slope Depth to bedrock	1.00 1.00 0.30	Somewhat limited Thin layer	0.98	Very limited Depth to water	1.00
Ricrest-----	30	Very limited Slope Seepage	1.00 0.72	Somewhat limited Piping	0.20	Very limited Depth to water	1.00
87: Manila-----	85	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
88: Manila-----	80	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
89: Manila-----	85	Somewhat limited Seepage Slope	0.72 0.15	Not limited		Very limited Depth to water	1.00
90: Manila-----	50	Somewhat limited Seepage Slope	0.72 0.01	Not limited		Very limited Depth to water	1.00
Bancroft-----	30	Somewhat limited Seepage Slope	0.72 0.01	Somewhat limited Piping	0.64	Very limited Depth to water	1.00
91: Manila-----	50	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
Broadhead-----	25	Not limited		Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
92: Manila-----	40	Somewhat limited Seepage Slope	0.72 0.15	Not limited		Very limited Depth to water	1.00
Broadhead-----	35	Somewhat limited Slope	0.15	Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
93: Manila-----	50	Somewhat limited Seepage Slope	0.72 0.21	Not limited		Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Lonigan-----	30	Very limited Seepage Slope Depth to bedrock	1.00 0.21 0.06	Somewhat limited Thin layer	0.77	Very limited Depth to water	1.00
94: Manila-----	55	Somewhat limited Seepage Slope	0.72 0.01	Not limited		Very limited Depth to water	1.00
Yeates Hollow-----	30	Somewhat limited Seepage Slope	0.02 0.01	Somewhat limited Content of large stones	0.19	Very limited Depth to water	1.00
95: Maplecreek-----	95	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.68 0.07	Very limited Cutbanks cave Depth to saturated zone	1.00 0.14
96: Maplecreek-----	45	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.68 0.07	Very limited Cutbanks cave Depth to saturated zone	1.00 0.14
Layton-----	35	Very limited Seepage	1.00	Somewhat limited Seepage	0.10	Very limited Cutbanks cave Depth to saturated zone	1.00 0.90
97: Merkley-----	45	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.08	Very limited Depth to water	1.00
Lago-----	20	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Piping	0.95 0.37	Somewhat limited Cutbanks cave Depth to saturated zone	0.10 0. 0.02
Bear Lake-----	15	Very limited Seepage	1.00	Very limited Depth to saturated zone	1.00	Somewhat limited Cutbanks cave	0.10
98: Moonlight-----	40	Somewhat limited Slope Seepage	0.97 0.72	Very limited Piping	1.00	Very limited Depth to water	1.00
Camelback-----	35	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.12	Very limited Depth to water	1.00
99: Niter-----	60	Not limited		Somewhat limited Hard to pack	0.79	Very limited Depth to water	1.00
Brifox-----	20	Not limited		Somewhat limited Hard to pack	0.96	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
100: Northwater-----	35	Very limited Slope Seepage Depth to bedrock	1.00 0.72 0.22	Somewhat limited Content of large stones Thin layer	0.31 0.22	Very limited Depth to water	1.00
Foxol-----	25	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Content of large stones Thin layer	1.00 1.00	Very limited Depth to water	1.00
Vitale-----	20	Very limited Slope Depth to bedrock Seepage	1.00 0.91 0.04	Very limited Content of large stones Thin layer	1.00 0.91	Very limited Depth to water	1.00
101: Northwater-----	65	Somewhat limited Seepage Slope	0.72 0.28	Somewhat limited Content of large stones	0.31	Very limited Depth to water	1.00
Povey-----	25	Somewhat limited Seepage Slope	0.72 0.12	Somewhat limited Seepage	0.35	Very limited Depth to water	1.00
102: Northwater-----	65	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Content of large stones	0.31	Very limited Depth to water	1.00
Povey-----	15	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.35	Very limited Depth to water	1.00
103: Nyman-----	50	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.72 0.65	Very limited Piping Thin layer Content of large stones Seepage	1.00 0.65 0.13 0.03	Very limited Depth to water	1.00
Lonigan-----	20	Very limited Seepage Slope Depth to bedrock	1.00 0.94 0.30	Somewhat limited Thin layer	0.98	Very limited Depth to water	1.00
Copenhagen-----	15	Very limited Depth to bedrock Slope	1.00 0.94	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
104: Oxford-----	45	Not limited		Very limited Hard to pack	0.99	Very limited Depth to water	1.00
Banida-----	35	Not limited		Somewhat limited Hard to pack	0.81	Very limited Depth to water	1.00
105: Oxford-----	45	Not limited		Very limited Hard to pack	0.99	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
105: Banida-----	35	Not limited		Somewhat limited Hard to pack	0.81	Very limited Depth to water	1.00
106: Oxford-----	50	Somewhat limited Slope	0.15	Very limited Hard to pack	0.99	Very limited Depth to water	1.00
Banida-----	35	Somewhat limited Slope	0.15	Somewhat limited Hard to pack	0.81	Very limited Depth to water	1.00
107: Oxford-----	65	Somewhat limited Slope	0.72	Very limited Hard to pack	0.99	Very limited Depth to water	1.00
Gullied land-----	15	Somewhat limited Slope	0.72	Not rated		Not rated	
108: Parkay-----	45	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.72 0.18	Somewhat limited Thin layer	0.18	Very limited Depth to water	1.00
Povey-----	30	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.35	Very limited Depth to water	1.00
109: Parleys-----	85	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
110: Parleys-----	85	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
111: Parleys, wet-----	90	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
112: Pavohroo-----	30	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Piping	0.83	Very limited Depth to water	1.00
Sedgway-----	30	Somewhat limited Seepage Slope	0.72 0.72	Somewhat limited Content of large stones	0.38	Very limited Depth to water	1.00
Toponce-----	20	Somewhat limited Slope	0.28	Somewhat limited Hard to pack	0.90	Very limited Depth to water	1.00
113: Picabo-----	45	Somewhat limited Seepage	0.72	Very limited Piping Depth to saturated zone	1.00 0.43	Somewhat limited Slow refill Depth to saturated zone Cutbanks cave	0.28 0.25 0.10

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
113: Thatcherflats-----	30	Not limited		Very limited Piping Depth to saturated zone	1.00 0.09	Very limited Slow refill Depth to saturated zone Cutbanks cave Salinity and saturated zone	1.00 0.54 0.10 0.06
114: Pits, gravel-----	100	Not rated		Not rated		Not rated	
115: Pollynot-----	75	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.06	Very limited Depth to water	1.00
116: Pollynot-----	75	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.06	Very limited Depth to water	1.00
117: Pollynot-----	75	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.06	Very limited Depth to water	1.00
118: Pollynot-----	75	Very limited Seepage Slope	1.00 0.01	Very limited Piping Seepage	1.00 0.06	Very limited Depth to water	1.00
119: Polumar-----	45	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.72 0.22	Somewhat limited Content of large stones Thin layer	0.88 0.22	Very limited Depth to water	1.00
Ireland-----	30	Somewhat limited Depth to bedrock Slope Seepage	0.99 0.97 0.72	Somewhat limited Thin layer Content of large stones	0.99 0.52	Very limited Depth to water	1.00
120: Polumar-----	30	Very limited Slope Seepage Depth to bedrock	1.00 0.72 0.22	Somewhat limited Content of large stones Thin layer	0.88 0.22	Very limited Depth to water	1.00
Sprollow-----	30	Very limited Slope Seepage Depth to bedrock	1.00 0.72 0.52	Somewhat limited Thin layer Content of large stones	0.52 0.26	Very limited Depth to water	1.00
Ireland-----	20	Very limited Slope Depth to bedrock Seepage	1.00 0.99 0.72	Somewhat limited Thin layer Content of large stones	0.99 0.52	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
121: Povey-----	35	Somewhat limited Seepage Slope	0.72 0.50	Somewhat limited Seepage	0.35	Very limited Depth to water	1.00
Hades-----	30	Somewhat limited Slope Seepage	0.50 0.04	Not limited		Very limited Depth to water	1.00
Hondoho-----	15	Somewhat limited Seepage Slope	0.72 0.50	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
122: Povey-----	45	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.35	Very limited Depth to water	1.00
Parkay-----	30	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.72 0.18	Somewhat limited Thin layer	0.18	Very limited Depth to water	1.00
123: Preston-----	90	Very limited Seepage	1.00	Somewhat limited Seepage	0.31	Very limited Depth to water	1.00
124: Preston-----	90	Very limited Seepage	1.00	Somewhat limited Seepage	0.31	Very limited Depth to water	1.00
125: Preston-----	85	Very limited Seepage Slope	1.00 0.08	Somewhat limited Seepage	0.31	Very limited Depth to water	1.00
126: Preston-----	55	Very limited Seepage Slope	1.00 0.99	Somewhat limited Seepage	0.31	Very limited Depth to water	1.00
Xerorthents-----	20	Somewhat limited Slope Depth to bedrock	0.99 0.80	Very limited Thin layer Seepage Content of large stones	1.00 0.65 0.04	Very limited Depth to water	1.00
127: Ricrest-----	90	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.20	Very limited Depth to water	1.00
128: Sanyon-----	30	Somewhat limited Slope Depth to bedrock	0.72 0.58	Very limited Thin layer Seepage	1.00 0.35	Very limited Depth to water	1.00
Staberg-----	30	Very limited Seepage Slope Depth to bedrock	1.00 0.72 0.02	Somewhat limited Piping Thin layer Seepage	0.95 0.56 0.03	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
128: Kabear-----	20	Very limited Seepage Slope	1.00 0.72	Not limited		Very limited Depth to water	1.00
129: Smidale-----	85	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Content of large stones	0.05	Very limited Depth to water	1.00
130: Smidale-----	45	Somewhat limited Slope Seepage	0.88 0.72	Somewhat limited Content of large stones	0.05	Very limited Depth to water	1.00
Staberg-----	40	Very limited Seepage Slope Depth to bedrock	1.00 0.72 0.02	Somewhat limited Piping Thin layer Seepage	0.95 0.56 0.03	Very limited Depth to water	1.00
131: Sprollo-----	45	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.72 0.52	Somewhat limited Thin layer Content of large stones	0.52 0.26	Very limited Depth to water	1.00
Hondoho-----	35	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.07	Very limited Depth to water	1.00
132: Sprollo-----	40	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.72 0.52	Somewhat limited Thin layer Content of large stones	0.52 0.26	Very limited Depth to water	1.00
Hymas-----	35	Very limited Depth to bedrock Slope	1.00 0.97	Very limited Thin layer Content of large stones	1.00 0.01	Very limited Depth to water	1.00
133: Sterling-----	85	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
134: Sterling-----	85	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
135: Sterling-----	90	Somewhat limited Seepage Slope	0.72 0.03	Not limited		Very limited Depth to water	1.00
136: Sterling-----	85	Somewhat limited Slope Seepage	0.88 0.72	Not limited		Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
137: Sterling-----	50	Somewhat limited Seepage	0.72	Not limited		Very limited Depth to water	1.00
Parleys-----	30	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
138: Thatcher-----	45	Somewhat limited Seepage Slope	0.72 0.01	Somewhat limited Piping	0.04	Very limited Depth to water	1.00
Bearhollow-----	35	Somewhat limited Seepage Slope	0.72 0.01	Somewhat limited Piping	0.22	Very limited Depth to water	1.00
139: Toponce-----	50	Somewhat limited Slope	0.08	Somewhat limited Hard to pack	0.90	Very limited Depth to water	1.00
Broadhead-----	30	Somewhat limited Slope	0.08	Somewhat limited Hard to pack	0.17	Very limited Depth to water	1.00
140: Trenton-----	50	Somewhat limited Seepage	0.04	Very limited Hard to pack Depth to saturated zone	1.00 0.43	Very limited Slow refill Depth to saturated zone Cutbanks cave Salinity and saturated zone	1.00 0.25 0.10 0.01
Battle Creek-----	40	Not limited		Somewhat limited Hard to pack	0.77	Very limited Slow refill Depth to saturated zone Cutbanks cave	1.00 0.99 0.10
141: Trenton, cool-----	50	Somewhat limited Seepage	0.04	Very limited Hard to pack Depth to saturated zone	1.00 0.43	Very limited Slow refill Depth to saturated zone Cutbanks cave Salinity and saturated zone	1.00 0.25 0.10 0.01
Battle Creek, cool--	40	Not limited		Somewhat limited Hard to pack	0.77	Very limited Slow refill Depth to saturated zone Cutbanks cave	1.00 0.99 0.10
142: Trenton-----	45	Somewhat limited Seepage	0.04	Very limited Hard to pack Depth to saturated zone	1.00 0.43	Very limited Slow refill Depth to saturated zone Cutbanks cave Salinity and saturated zone	1.00 0.25 0.10 0.01



# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
142: Parleys-----	35	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
143: Valmar-----	40	Somewhat limited Depth to bedrock Slope Seepage	0.98 0.97 0.72	Very limited Content of large stones Thin layer	1.00 0.98	Very limited Depth to water	1.00
Camelback-----	25	Somewhat limited Slope Seepage	0.97 0.72	Somewhat limited Seepage	0.12	Very limited Depth to water	1.00
Hades-----	20	Somewhat limited Slope Seepage	0.97 0.04	Not limited		Very limited Depth to water	1.00
144: Vitale-----	40	Somewhat limited Slope Depth to bedrock Seepage	0.97 0.91 0.04	Very limited Content of large stones Thin layer	1.00 0.91	Very limited Depth to water	1.00
Bergquist-----	25	Very limited Seepage Slope Depth to bedrock	1.00 0.97 0.03	Somewhat limited Seepage Thin layer	0.57 0.03	Very limited Depth to water	1.00
Rock outcrop-----	15	Very limited Depth to bedrock Slope	1.00 0.97	Not rated		Not rated	
145: Vitale-----	35	Somewhat limited Depth to bedrock Slope Seepage	0.99 0.32 0.04	Very limited Content of large stones Thin layer	1.00 0.99	Very limited Depth to water	1.00
Yeates Hollow-----	25	Somewhat limited Slope Seepage	0.04 0.02	Somewhat limited Content of large stones	0.19	Very limited Depth to water	1.00
Northwater-----	15	Somewhat limited Seepage Slope Depth to bedrock	0.72 0.50 0.22	Somewhat limited Content of large stones Thin layer	0.31 0.22	Very limited Depth to water	1.00
146: Welby-----	90	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
147: Welby-----	90	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00
148: Welby, wet-----	85	Very limited Seepage	1.00	Very limited Piping	1.00	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
149: Collinston-----	40	Somewhat limited Seepage	0.04	Somewhat limited Piping	0.24	Very limited Depth to water	1.00
Wheelon-----	40	Somewhat limited Seepage	0.04	Somewhat limited Piping	0.50	Very limited Depth to water	1.00
150: Wheelon-----	40	Somewhat limited Slope Seepage	0.04 0.04	Somewhat limited Piping	0.50	Very limited Depth to water	1.00
Collinston-----	35	Somewhat limited Slope Seepage	0.04 0.04	Somewhat limited Piping	0.24	Very limited Depth to water	1.00
151: Wheelon-----	45	Somewhat limited Slope Seepage	0.88 0.04	Somewhat limited Piping	0.50	Very limited Depth to water	1.00
Collinston-----	30	Somewhat limited Slope Seepage	0.88 0.04	Somewhat limited Piping	0.24	Very limited Depth to water	1.00
152: Windernot-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.79	Very limited Depth to water	1.00
Lewnot-----	20	Very limited Seepage	1.00	Not rated		Very limited Cutbanks cave Depth to saturated zone	1.00 0.14
Stinkcreek-----	15	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.86	Very limited Cutbanks cave	1.00
153: Winn-----	90	Somewhat limited Seepage	0.72	Somewhat limited Piping Depth to saturated zone	0.92 0.43	Somewhat limited Slow refill Depth to saturated zone Cutbanks cave	0.28 0.25 0.10
154: Winwell-----	80	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
155: Winwell-----	45	Somewhat limited Seepage	0.72	Somewhat limited Piping	0.02	Very limited Depth to water	1.00
Collinston-----	35	Somewhat limited Seepage	0.04	Somewhat limited Piping	0.24	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
156: Wormcreek-----	50	Somewhat limited Seepage Slope Depth to bedrock	0.72 0.72 0.01	Somewhat limited Thin layer Content of large stones	0.16 0.13	Very limited Depth to water	1.00
Copenhagen-----	30	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.07	Very limited Depth to water	1.00
157: Wormcreek-----	45	Somewhat limited Slope Seepage Depth to bedrock	0.82 0.72 0.01	Somewhat limited Thin layer Content of large stones	0.16 0.13	Very limited Depth to water	1.00
Lonigan-----	35	Very limited Seepage Slope Depth to bedrock	1.00 0.64 0.30	Somewhat limited Thin layer	0.98	Very limited Depth to water	1.00
158: Wursten-----	45	Very limited Seepage Slope	1.00 0.15	Somewhat limited Piping	0.60	Very limited Depth to water	1.00
Dirtyhead-----	35	Somewhat limited Seepage Slope Depth to bedrock	0.72 0.15 0.02	Somewhat limited Thin layer Seepage	0.56 0.22	Very limited Depth to water	1.00
159: Xerochrepts-----	30	Somewhat limited Seepage Slope	0.72 0.50	Somewhat limited Piping	0.89	Very limited Depth to water	1.00
Wormcreek-----	25	Somewhat limited Slope Seepage Depth to bedrock	0.88 0.72 0.01	Somewhat limited Thin layer Content of large stones	0.16 0.13	Very limited Depth to water	1.00
Xerorthents-----	20	Very limited Slope Depth to bedrock	1.00 0.80	Very limited Thin layer Seepage Content of large stones	1.00 0.65 0.04	Very limited Depth to water	1.00
160: Xerorthents-----	75	Somewhat limited Slope Depth to bedrock	0.97 0.80	Very limited Thin layer Seepage Content of large stones	1.00 0.65 0.04	Very limited Depth to water	1.00
161: Yeates Hollow-----	85	Somewhat limited Slope Seepage	0.24 0.02	Somewhat limited Content of large stones	0.19	Very limited Depth to water	1.00

# Soil Survey of Franklin County Area, Idaho

Table 19.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
162: Yeates Hollow-----	40	Somewhat limited Slope Seepage	0.32 0.02	Somewhat limited Content of large stones	0.19	Very limited Depth to water	1.00
Manila-----	25	Somewhat limited Seepage Slope	0.72 0.15	Not limited		Very limited Depth to water	1.00
Softback-----	15	Somewhat limited Seepage Slope	0.72 0.32	Somewhat limited Content of large stones Seepage	0.12 0.05	Very limited Depth to water	1.00
163: Yeates Hollow-----	45	Somewhat limited Slope Seepage	0.82 0.02	Somewhat limited Content of large stones	0.19	Very limited Depth to water	1.00
Vitale-----	35	Somewhat limited Depth to bedrock Slope Seepage	0.95 0.82 0.04	Very limited Content of large stones Thin layer	1.00 0.95	Very limited Depth to water	1.00
164: Water-----	100	Not rated		Not rated		Not rated	

Table 20.--Engineering Index Properties  
(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
1: Airport-----	0-4	Silty clay loam	CL	A-7	0	0	100	100	95-100	91-99	39-51	19-25
	4-16	Silty clay loam	CL	A-7	0	0	100	100	95-100	91-99	38-49	19-25
	16-60	Silty clay loam	CL	A-7	0	0	100	100	95-100	91-99	38-49	19-25
2: Ant Flat-----	0-8	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	78-91	41-53	19-25
	8-24	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	24-42	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	42-60	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	95-100	90-100	78-91	38-47	19-25
3: Ant Flat-----	0-8	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	78-91	41-53	19-25
	8-24	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	24-42	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	42-60	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	95-100	90-100	78-91	38-47	19-25
4: Ant Flat-----	0-8	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	78-91	41-53	19-25
	8-24	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	24-42	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	42-60	Silty clay loam, clay loam	CL	A-7, A-6	0	0	100	95-100	90-100	78-91	38-47	19-25
5: Ant Flat-----	0-8	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	78-91	41-53	19-25
	8-24	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	24-42	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	42-60	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	95-100	90-100	78-91	38-47	19-25
Oxford-----	0-5	Silty clay	CH	A-7	0	0	100	100	97-100	92-97	51-59	29-33
	5-26	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	26-63	Silty clay, clay	CH	A-7	0	0	100	100	80-100	77-100	50-74	29-48

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
6: Ant Flat-----	0-8	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	78-91	41-53	19-25
	8-24	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	24-42	Clay, clay loam	CH, CL	A-7	0	0	100	94-100	80-100	65-88	47-68	25-40
	42-60	Silty clay loam, clay loam	CL	A-6, A-7	0	0	100	95-100	90-100	78-91	38-47	19-25
Oxford-----	0-5	Silty clay	CH	A-7	0	0	100	100	97-100	92-97	51-59	29-33
	5-26	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	26-63	Silty clay, clay	CH	A-7	0	0	100	100	80-100	77-100	50-74	29-48
7: Arbone-----	0-8	Loam	CL	A-4	0	0	90-100	79-100	68-90	48-66	25-35	8-12
	8-21	Loam, silt loam	CL	A-4	0	0	90-100	76-100	65-90	46-66	25-35	8-12
	21-60	Fine sandy loam, silt loam	SC, CL	A-2, A-4	0	0	85-100	69-100	61-98	26-47	18-31	4-12
8: Banida-----	0-6	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	85-97	43-53	22-28
	6-22	Silty clay, clay	CH	A-7	0	0	100	100	92-100	89-100	51-68	29-40
	22-35	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	35-64	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
9: Banida-----	0-6	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	85-97	43-53	22-28
	6-22	Silty clay, clay	CH	A-7	0	0	100	100	92-100	89-100	51-68	29-40
	22-35	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	35-64	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
10: Battle Creek----	0-8	Silty clay loam	CH, CL	A-7	0	0	100	100	94-100	90-98	45-58	22-28
	8-11	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	100	89-100	84-97	47-61	23-32
	11-19	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	19-40	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	40-60	Silty clay, silty clay loam	CH	A-7	0	0	100	100	89-100	85-100	43-63	25-40
11: Battle Creek----	0-8	Silty clay loam	CH, CL	A-7	0	0	100	100	94-100	90-98	45-58	22-28
	8-11	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	100	89-100	84-97	47-61	23-32
	11-19	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	19-40	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	40-60	Silty clay, silty clay loam	CH	A-7	0	0	100	100	89-100	85-100	43-63	25-40
12: Battle Creek----	0-8	Silty clay loam	CH, CL	A-7	0	0	100	100	94-100	90-98	45-58	22-28
	8-11	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	100	89-100	84-97	47-61	23-32
	11-19	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	19-40	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	40-60	Silty clay, silty clay loam	CH	A-7	0	0	100	100	89-100	85-100	43-63	25-40

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
13:												
Bear Lake-----	0-11	Silty clay loam	ML	A-7, A-4, A-6	0	0	100	100	96-100	89-95	42-57	19-23
	11-20	Silty clay loam	CL	A-7	0	0	100	100	96-100	92-98	39-50	19-24
	20-26	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	84-100	78-97	26-45	10-24
	26-60	Silty clay loam, sandy loam, very fine sandy loam	CL, GM, GP- GM, SM	A-6, A-2, A-4	0	0	100	100	84-100	78-97	24-43	9-24
Chesbrook-----	0-2	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-20	Silty clay loam	CL	A-7	0	0	100	94-100	89-100	85-99	43-55	18-25
	20-48	Silty clay loam	CH, CL	A-7	0	0	100	94-100	91-100	87-98	45-58	25-28
	48-62	Silt loam, silty clay loam	CL	A-6, A-7	0	0	94-100	88-100	79-100	74-96	31-44	13-23
Picabo-----	0-4	Silt loam	CL, ML	A-4	0	0	100	100	97-100	89-93	28-40	9-12
	4-16	Silt loam	CL, ML	A-6, A-4	0	0	100	100	95-100	87-95	22-37	6-12
	16-45	Silt loam	CL	A-6, A-4	0	0	100	100	95-100	87-95	20-31	6-12
	45-51	Silt loam	CL	A-6, A-4	0	0	100	100	95-100	87-95	20-30	6-12
	51-65	Silt loam	CL	A-4	0	0	100	100	97-100	88-93	20-27	6-10
14:												
Bear Lake-----	0-11	Silty clay loam	ML	A-7, A-4, A-6	0	0	100	100	96-100	89-95	42-57	19-23
	11-20	Silty clay loam	CL	A-7	0	0	100	100	96-100	92-98	39-50	19-24
	20-26	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	84-100	78-97	26-45	10-24
	26-60	Silty clay loam, sandy loam, very fine sandy loam	GM, GP-GM, SM, CL	A-2, A-4, A-6	0	0	100	100	84-100	78-97	24-43	9-24
Downata-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-12	Silt loam	ML, CL-ML	A-6	0	0	100	94-100	88-100	81-98	28-47	7-16
	12-59	Silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	87-98	39-50	19-24
	59-63	Silt loam	CL	A-6	0	0	100	94-100	90-100	84-99	28-41	12-19



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
15:												
Bear Lake-----	0-11	Silty clay loam	ML	A-7, A-4, A-6	0	0	100	100	96-100	89-95	42-57	19-23
	11-20	Silty clay loam	CL	A-7	0	0	100	100	96-100	92-98	39-50	19-24
	20-26	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	84-100	78-97	26-45	10-24
	26-60	Silty clay loam, sandy loam, very fine sandy loam	GM, GP-GM, SM, CL	A-2, A-4, A-6	0	0	100	100	84-100	78-97	24-43	9-24
Downata-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-12	Silt loam	ML, CL-ML	A-6	0	0	100	94-100	88-100	81-98	28-47	7-16
	12-59	Silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	87-98	39-50	19-24
	59-63	Silt loam	CL	A-6	0	0	100	94-100	90-100	84-99	28-41	12-19
Thatcherflats---	0-4	Silt loam	CL	A-4	0	0	100	100	96-100	87-94	23-35	6-12
	4-16	Silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	100	100	92-100	87-100	40-56	20-31
	16-61	Silt loam, silty clay loam	CL	A-7	0	0	100	100	94-100	88-98	37-48	18-25
16:												
Bear Lake-----	0-11	Silty clay loam	ML	A-7, A-4, A-6	0	0	100	100	96-100	89-95	42-57	19-23
	11-20	Silty clay loam	CL	A-7	0	0	100	100	96-100	92-98	39-50	19-24
	20-26	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	84-100	78-97	26-45	10-24
	26-60	Silty clay loam, sandy loam, very fine sandy loam	GM, GP-GM, SM, CL	A-2, A-4, A-6	0	0	100	100	84-100	78-97	24-43	9-24

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
16: Lago-----	0-9	Silt loam	CL	A-6	0	0	100	100	95-100	88-96	33-44	11-18
	9-16	Silt loam	CL	A-6	0	0	100	100	95-100	88-96	29-42	12-18
	16-45	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	90-100	32-46	15-25
	45-60	Sandy loam, fine sandy loam, silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	71-87	44-60	20-37	6-18
17: Bearhollow-----	0-4	Gravelly loam	SC	A-4, A-2	0	0	70-83	49-83	42-76	30-56	25-33	8-12
	4-9	Gravelly loam	SC, GC	A-4	0	0	65-83	49-83	42-76	30-56	24-31	8-12
	9-22	Gravelly loam	SC, CL-ML, GC-GM, GC	A-4	0	0	69-83	49-83	41-76	30-56	20-28	6-10
	22-43	Gravelly loam	SC, CL-ML, GC-GM	A-4, A-2	0	0	70-83	49-83	41-76	30-56	20-28	6-10
	43-60	Gravelly loam	SC, CL-ML, GC-GM, GC	A-4	0	0	69-83	49-83	41-76	30-56	22-30	6-11
Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	85-95	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
Iphil-----	0-8	Silt loam	CL, ML	A-4	0	0	94-100	88-100	83-100	75-96	20-35	3-12
	8-15	Silt loam	CL	A-4	0	0	94-100	88-100	84-100	77-95	22-33	6-12
	15-60	Silt loam, loam	CL	A-4	0	0	94-100	88-100	84-100	67-82	23-31	7-12

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
18: Bergquist-----	0-5	Very gravelly loam	GM, GC-GM	A-2	0	0-12	45-60	33-60	27-56	19-41	20-35	3-12
	5-12	Very cobbly loam, very gravelly loam, very gravelly sandy loam	GM, SM, SC-SM, GC-GM	A-2, A-4	0	13-22	33-44	18-44	15-41	10-30	18-35	2-12
	12-54	Extremely gravelly sandy loam, extremely cobbly sandy loam	GP-GM, GP-GC, GW-GC	A-1, A-2	0	8-26	17-55	7-55	5-45	2-24	0-26	NP-7
	54-64	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Rubble land-----	0-60	Fragmental material	---	---	---	---	---	---	---	---	---	---
19: Bergquist-----	0-5	Very gravelly loam	GM, GC-GM	A-2	0	0-12	45-60	33-60	27-56	19-41	20-35	3-12
	5-12	Very cobbly loam, very gravelly loam, very gravelly sandy loam	SC-SM, GM, SM, GC-GM	A-2, A-4	0	13-22	33-44	18-44	15-41	10-30	18-35	2-12
	12-54	Extremely gravelly sandy loam, extremely cobbly sandy loam	GP-GC, GP-GM, GW-GC	A-1, A-2	0	8-26	17-55	7-55	5-45	2-24	0-26	NP-7
	54-64	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
19: Softback-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-4	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	0	0	74-88	52-88	47-85	38-69	26-37	7-12
	4-10	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	0	0	74-88	52-88	47-85	38-69	26-37	7-12
	10-24	Very cobbly silt loam	GC, GC-GM	A-4, A-6	0-19	10-32	52-88	32-88	28-87	23-74	26-41	9-17
	24-30	Very gravelly silt loam	GC	A-2, A-6	0-7	10-27	50-74	26-74	24-72	21-62	30-39	13-19
	30-39	Extremely gravelly clay loam, very cobbly clay loam	GC	A-2, A-7	0-18	9-22	42-76	18-76	16-72	12-57	37-47	19-25
	39-63	Extremely gravelly silty clay loam, extremely cobbly silty clay loam	GC	A-2	0-18	9-22	42-76	18-76	17-76	15-69	37-47	19-25
20: Bergquist-----	0-5	Very gravelly loam	GM, GC-GM	A-2	0	0-12	45-60	33-60	27-56	19-41	20-35	3-12
	5-12	Very cobbly loam, very gravelly loam, very gravelly sandy loam	SC-SM, GM, SM, GC-GM	A-2, A-4	0	13-22	33-44	18-44	15-41	10-30	18-35	2-12
	12-54	Extremely gravelly sandy loam, extremely cobbly sandy loam	GP-GC, GP-GM, GW-GC	A-1, A-2	0	8-26	17-55	7-55	5-45	2-24	0-26	NP-7
	54-64	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
20: Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
21: Bothwell-----	0-6	Silt loam	ML	A-4, A-6	0	0	100	94-100	90-100	84-95	34-43	10-15
	6-25	Silt loam, silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	85-100	34-51	15-25
	25-45	Silty clay loam	CL	A-6, A-7	0	0	100	94-100	91-100	87-99	38-49	19-25
	45-60	Silt loam, silty clay loam	CL	A-6	0	0	100	89-100	82-100	77-100	30-47	12-25
22: Bothwell-----	0-6	Silt loam	ML	A-4, A-6	0	0	100	94-100	90-100	84-95	34-43	10-15
	6-25	Silt loam, silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	85-100	34-51	15-25
	25-45	Silty clay loam	CL	A-6, A-7	0	0	100	94-100	91-100	87-99	38-49	19-25
	45-60	Silt loam, silty clay loam	CL	A-6	0	0	100	89-100	82-100	77-100	30-47	12-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
23:												
Bothwell-----	0-6	Silt loam	ML	A-4, A-6	0	0	100	94-100	90-100	84-95	34-43	10-15
	6-25	Silt loam, silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	85-100	34-51	15-25
	25-45	Silty clay loam	CL	A-6, A-7	0	0	100	94-100	91-100	87-99	38-49	19-25
	45-60	Silt loam, silty clay loam	CL	A-6	0	0	100	89-100	82-100	77-100	30-47	12-25
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Justesen-----	0-6	Silt loam	CL, CL-ML	A-4	0	0	100	94-100	83-97	67-80	26-39	7-13
	6-37	Silt loam, silty clay loam, gravelly silty clay loam	CL	A-7, A-6	0	0-10	91-100	81-100	77-100	68-94	36-50	16-24
	37-60	Silt loam	CL	A-6	0	0-17	94-100	80-100	73-98	62-85	33-45	13-19
24:												
Bothwell-----	0-6	Silt loam	ML	A-4, A-6	0	0	100	94-100	90-100	84-95	34-43	10-15
	6-25	Silt loam, silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	85-100	34-51	15-25
	25-45	Silty clay loam	CL	A-6, A-7	0	0	100	94-100	91-100	87-99	38-49	19-25
	45-60	Silt loam, silty clay loam	CL	A-6	0	0	100	89-100	82-100	77-100	30-47	12-25
Thatcher-----	0-8	Loam	CL	A-6	0	0	95-100	79-100	76-100	59-84	30-41	10-17
	8-21	Silty clay loam, clay loam	CL	A-7, A-6	0	0	95-100	89-100	86-100	82-99	38-47	19-24
	21-60	Silt loam, fine sandy loam, loam	CL, CL-ML, SC-SM	A-6, A-4	0	0	95-100	89-100	83-100	77-99	23-37	7-17

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
25:												
Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	82-92	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25
26:												
Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	82-92	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25
27:												
Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	82-92	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
Niter-----	0-8	Silty clay loam	CH	A-7	0	0	100	100	94-100	84-94	43-57	21-29
	8-19	Silty clay loam, silty clay	CH	A-7	0	0	100	100	94-100	90-100	48-71	25-39
	19-60	Silty clay, silty clay loam, clay	CH	A-7	0	0	100	100	89-100	85-100	47-79	25-46

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
28: Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	82-92	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
Niter-----	0-8	Silty clay loam	CH	A-7	0	0	100	100	94-100	84-94	43-57	21-29
	8-19	Silty clay loam, silty clay	CH	A-7	0	0	100	100	94-100	90-100	48-71	25-39
	19-60	Silty clay, silty clay loam, clay	CH	A-7	0	0	100	100	89-100	85-100	47-79	25-46
29: Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	82-92	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
Niter-----	0-8	Silty clay loam	CH	A-7	0	0	100	100	94-100	84-94	43-57	21-29
	8-19	Silty clay loam, silty clay	CH	A-7	0	0	100	100	94-100	90-100	48-71	25-39
	19-60	Silty clay, silty clay loam, clay	CH	A-7	0	0	100	100	89-100	85-100	47-79	25-46
30: Broadhead-----	0-7	Silt loam	CL	A-6	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	80-100	76-100	46-64	25-36



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
30:												
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Yago-----	0-10	Extremely stony silty clay loam	CL	A-7	21-27	21-44	64-94	40-94	38-94	33-86	41-53	19-25
	10-45	Very stony silty clay loam, extremely stony clay loam	CH, CL, GC	A-7	25-37	13-26	59-90	41-90	36-87	30-73	39-49	19-25
	45-60	Extremely stony silty clay loam, very stony clay loam	CL, GC	A-6, A-7	26-37	13-26	58-90	39-90	37-90	33-82	37-47	19-25
31:												
Broadhead-----	0-7	Silt loam	CL	A-6	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	79-100	75-100	46-64	25-36
Yago-----	0-10	Extremely stony silty clay loam	CL	A-7	21-27	21-44	64-94	40-94	38-94	33-86	41-53	19-25
	10-45	Very stony silty clay loam, extremely stony clay loam	CH, CL, GC	A-7	25-37	13-26	59-90	41-90	36-87	30-73	39-49	19-25
	45-60	Extremely stony silty clay loam, very stony clay loam	CL, GC	A-6, A-7	26-37	13-26	58-90	39-90	37-90	33-82	37-47	19-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
32: Camelback-----	0-3	Very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	3-14	Very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	14-22	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	34-42	15-18
	22-32	Very gravelly silty clay loam	GC	A-7	0	0	31-67	28-66	27-66	24-59	39-46	19-22
	32-50	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	32-40	13-18
	50-61	Very gravelly loam	GC, SC	A-2	0	0	38-66	36-65	30-61	21-45	24-35	9-16
Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
33: Camelback-----	0-3	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	3-14	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	14-22	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	34-42	15-18
	22-32	Very gravelly silty clay loam	GC	A-7	0	0	31-67	28-66	27-66	24-59	39-46	19-22
	32-50	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	32-40	13-18
	50-61	Very gravelly loam	SC, GC	A-2	0	0	38-66	36-65	30-61	21-45	24-35	9-16

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
33: Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Valmar-----	0-9	Very cobbly silt loam	GC, GC-GM, GM	A-6	0-7	27-31	63-86	42-86	37-83	30-68	27-39	8-13
	9-14	Very stony silt loam, very cobbly silt loam	CL, GC, GC-GM	A-6	0-7	27-32	70-95	53-95	48-94	41-81	32-42	13-19
	14-24	Extremely stony silt loam, extremely flaggy silt loam	SC, GC, GC-GM	A-6	64-89	3-24	49-100	18-100	16-98	14-85	32-40	13-19
	24-34	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
34: Cedarhill-----	0-8	Very gravelly silt loam	GC, GC-GM, GM	A-4, A-2	0	0-14	47-67	33-67	30-64	24-52	22-34	6-10
	8-17	Gravelly loam, very gravelly loam, gravelly silt loam	SC, GC	A-2, A-4	0	0-13	60-87	28-87	23-79	16-57	22-32	6-11
	17-60	Extremely gravelly loam, extremely cobbly loam, very gravelly silt loam	GC	A-1, A-2	0	0-27	30-67	17-67	15-64	11-50	21-30	6-11
35: Cedarhill-----	0-8	Very gravelly silt loam	GC, GC-GM, GM	A-4, A-2	0	0-14	47-67	33-67	30-64	24-52	22-34	6-10
	8-17	Gravelly loam, very gravelly loam, gravelly silt loam	SC, GC	A-2, A-4	0	0-13	60-87	28-87	23-79	16-57	22-32	6-11
	17-60	Extremely gravelly loam, extremely cobbly loam, very gravelly silt loam	GC	A-1, A-2	0	0-27	30-67	17-67	15-64	11-50	21-30	6-11

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
35:												
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Ricrest-----	0-6	Gravelly silt loam	GC, ML	A-6	0	0	66-82	53-82	46-82	38-69	28-45	9-17
	6-20	Clay loam, silt loam, gravelly silt loam	CL	A-7, A-6	0	0	67-83	53-83	50-83	43-74	36-51	16-22
	20-60	Gravelly loam, gravelly clay loam, gravelly silt loam	SC, CL, GC	A-2, A-6	0	0-7	63-92	33-92	30-92	26-81	31-47	13-21
36:												
Cedarhill-----	0-8	Very gravelly silt loam	GC, GC-GM, GM	A-4, A-2	0	0-14	47-67	33-67	30-64	24-52	22-34	6-10
	8-17	Gravelly loam, very gravelly loam, gravelly silt loam	SC, GC	A-2, A-4	0	0-13	60-87	28-87	23-79	16-57	22-32	6-11
	17-60	Extremely gravelly loam, extremely cobbly loam, very gravelly silt loam	GC	A-1, A-2	0	0-27	30-67	17-67	15-64	11-50	21-30	6-11
Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
36: Ridgecrest-----	0-14	Extremely stony silt loam	GC, GM	A-2	16-28	9-22	44-79	31-79	27-78	21-63	23-37	4-12
	14-27	Extremely stony loam, extremely stony silt loam	GC	A-2, A-1, A-4	34-68	12-26	35-87	23-87	20-84	15-66	20-31	4-12
	27-37	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
37: Chesbrook-----	0-2	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-20	Silty clay loam	CL	A-7	0	0	100	94-100	89-100	85-99	43-55	18-25
	20-48	Silty clay loam	CH, CL	A-7	0	0	100	94-100	91-100	87-98	45-58	25-28
	48-62	Silt loam, silty clay loam	CL	A-6, A-7	0	0	94-100	88-100	79-100	74-96	31-44	13-23
Bear Lake-----	0-11	Silty clay loam	ML	A-7, A-4, A-6	0	0	100	100	96-100	89-95	42-57	19-23
	11-20	Silty clay loam	CL	A-7	0	0	100	100	96-100	92-98	39-50	19-24
	20-26	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	84-100	78-97	26-45	10-24
	26-60	Silty clay loam, sandy loam, very fine sandy loam	GM, GP-GM, SM, CL	A-2, A-4, A-6	0	0	100	100	84-100	78-97	24-43	9-24
38: Cloudless-----	0-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	94-100	83-100	73-98	59-81	28-43	7-15
	6-15	Silt loam	CL	A-6, A-4	0	0	89-100	73-100	64-99	53-84	29-45	10-19
	15-21	Silty clay loam	CL	A-7	0	0	89-100	74-100	71-100	63-91	39-49	19-23
	21-60	Gravelly silty clay loam	CL, GC	A-7, A-6	0	0	70-82	53-82	51-82	45-76	39-48	19-24
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
39:												
Cloudless-----	0-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	94-100	83-100	73-98	59-81	28-43	7-15
	6-15	Silt loam	CL	A-6, A-4	0	0	89-100	73-100	64-99	53-84	29-45	10-19
	15-21	Silty clay loam	CL	A-7	0	0	89-100	74-100	71-100	63-91	39-49	19-23
	21-60	Gravelly silty clay loam	CL, GC	A-7, A-6	0	0	70-82	53-82	51-82	45-76	39-48	19-24
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Howcan-----	0-8	Very gravelly loam	GC-GM, GM	A-2, A-4	0-8	0	55-63	43-63	36-57	25-41	23-35	4-10
	8-25	Very gravelly loam	GC	A-2, A-6	0-6	0-28	44-69	28-69	22-67	15-50	26-46	6-18
	25-36	Very cobbly loam	GC	A-2, A-6	0-6	0-28	44-69	28-69	22-67	15-50	26-46	6-18
	36-60	Very stony loam, very cobbly loam	GC, GC-GM	A-4, A-2	8-27	19-20	55-79	41-79	34-73	23-54	20-33	6-14
40:												
Copenhagen-----	0-7	Very channery loam	GC	A-2	0	14-19	28-52	6-51	6-51	4-42	29-38	12-16
	7-13	Very gravelly loam, very channery loam, extremely channery loam	GC	A-2, A-6	0	11-21	31-61	7-61	7-61	5-50	28-38	12-16
	13-23	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
40: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
41: Delish-----	0-3	Fine sandy loam	SC-SM, SM	A-4	0	0	100	100	87-96	42-51	21-35	3-10
	3-7	Silt loam, loam, fine sandy loam	CL-ML	A-4	0	0	100	100	84-91	51-58	21-31	4-10
	7-61	Silt loam, loam	CL	A-6, A-4	0	0	100	100	89-99	73-83	24-36	9-17
Cachecan-----	0-5	Silt loam	CL, CL-ML	A-4	0	0	100	88-100	79-96	64-78	24-35	7-12
	5-20	Fine sandy loam, silt loam	CL, CL-ML, ML, SC-SM, SM	A-4	0	0	100	88-100	74-98	55-77	17-35	2-13
	20-37	Silty clay loam, silt loam	CL	A-6	0	0	100	89-100	85-100	75-91	34-43	17-22
	37-61	Silty clay loam	CL	A-7	0	0	100	89-100	84-100	80-98	41-50	22-29
Stinkcreek-----	0-11	Silty clay loam	CL	A-7	0	0	100	88-100	84-100	80-99	43-55	18-25
	11-21	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	88-100	79-100	75-100	31-51	12-25
	21-40	Very gravelly loamy sand	GM, GP-GM	A-1	0	0	32-48	9-36	7-29	2-11	0-22	NP-2
	40-60	Extremely gravelly sand	GP	A-1	0	0	32-49	10-38	7-29	1-3	0-17	NP-1
42: Downata-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-12	Silt loam	ML, CL-ML	A-6, A-4	0	0	100	94-100	88-100	81-98	28-47	7-16
	12-59	Silty clay loam	CL	A-7, A-6	0	0	100	94-100	90-100	87-98	39-50	19-24
	59-63	Silt loam	CL	A-6	0	0	100	94-100	90-100	84-99	28-41	12-19

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
43: Dranburn-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-17	Silt loam	CL	A-6	0	0-9	100	88-100	80-97	66-82	33-45	11-16
	17-22	Silt loam, silty clay loam	CL	A-6, A-7	0	0-10	94-100	82-100	78-100	69-92	38-51	16-22
	22-48	Silty clay loam, gravelly silty clay loam	CL	A-7	0	0	82-90	63-90	61-90	53-82	39-49	19-25
	48-61	Silty clay loam, gravelly silty clay loam	CL	A-7	0	0	82-90	63-90	61-90	53-82	38-47	19-25
Robin-----	0-2	Silt loam	ML	A-6	0	0	100	100	97-100	90-94	32-43	10-13
	2-23	Silt loam	CL	A-6	0	0	100	100	97-100	90-94	35-44	13-17
	23-27	Silt loam	CL	A-6	0	0	100	100	97-100	90-94	33-42	13-17
	27-60	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	100	94-100	90-100	35-47	17-25
44: Enochville-----	0-12	Silt loam	ML	A-4, A-6	0	0	94-100	88-100	83-100	77-97	33-47	9-17
	12-43	Silt loam, silty clay loam	CL	A-7, A-6	0	0	95-100	89-100	83-100	78-100	33-53	13-25
	43-60	Very cobbly sandy loam, very gravelly sandy loam	GP-GC, GC	A-2	0-9	7-28	53-86	28-86	21-69	11-37	23-30	8-12
45: Foxol-----	0-3	Very stony loam	SC, SC-SM, GC	A-6	26-34	17-24	62-97	50-97	43-89	31-66	31-42	11-16
	3-9	Very stony loam	SC, GC	A-6	26-34	17-24	62-97	50-97	43-89	31-66	31-42	11-16
	9-17	Extremely stony loam	SC, GC-GM	A-2	38-49	22-25	66-100	36-100	30-94	22-71	29-41	12-19
	17-27	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
45: Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
46: Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Camelback-----	0-3	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	3-14	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	14-22	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	34-42	15-18
	22-32	Very gravelly silty clay loam	GC	A-7	0	0	31-67	28-66	27-66	24-59	39-46	19-22
	32-50	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	32-40	13-18
	50-61	Very gravelly loam	SC, GC	A-2	0	0	38-66	36-65	30-61	21-45	24-35	9-16

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
46: Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18
47: Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Lanoak-----	0-21	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	21-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19
Camelback-----	0-3	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	3-14	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	14-22	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	34-42	15-18
	22-32	Very gravelly silty clay loam	GC	A-7	0	0	31-67	28-66	27-66	24-59	39-46	19-22
	32-50	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	32-40	13-18
	50-61	Very gravelly loam	SC, GC	A-2	0	0	38-66	36-65	30-61	21-45	24-35	9-16

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
48: Haploxerolls----	0-6	Silt loam	CL-ML, GC-GM, GM, ML	A-4	0	0	52-100	14-100	11-100	9-85	20-45	2-17
	6-17	Gravelly loam, very cobbly sandy loam, extremely bouldery loam	SC, CL-ML, GC-GM, GM, ML	A-4	0	0	52-96	14-96	11-95	8-74	18-41	2-17
	17-60	Stratified gravelly loamy sand to very gravelly loam	CL-ML, GC-GM, GM, ML	A-1, A-2, A- 3, A-4	0	0-29	48-96	7-96	5-96	4-85	0-41	NP-19
Xerorthents-----	0-3	Gravelly loam	SC, GC	A-4, A-6	0	0-12	26-94	23-94	18-88	13-66	20-37	6-17
	3-11	Extremely channery loam	SC, GC	A-2	0	27-45	7-65	4-64	3-60	2-45	20-37	6-17
	11-21	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
49: Hendricks-----	0-5	Silt loam	CL	A-6	0	0	100	94-100	91-100	86-97	33-43	13-17
	5-15	Silt loam	CL	A-7, A-6	0	0	100	94-100	91-100	86-97	33-43	13-17
	15-66	Silty clay loam	CL	A-6, A-7	0	0	100	94-100	89-100	85-99	39-49	19-25
50: Holmes-----	0-4	Gravelly silt loam	GC, GM, ML, CL	A-6	0	1-8	70-81	49-81	44-78	37-66	30-41	11-15
	4-20	Very gravelly loam	GC	A-6, A-2	0-3	8-23	55-82	23-82	19-77	14-57	30-42	12-18
	20-61	Very gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GM, GW- GM, SM, SW- SM	A-1	3-30	10-30	51-91	14-91	6-46	2-15	0-20	NP-3

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
51: Hondee-----	0-6	Gravelly loam	GC, GC-GM	A-4, A-2	0	0-4	64-72	50-72	42-65	30-47	26-37	7-11
	6-16	Gravelly loam	SC, GC	A-2, A-4	0	0-4	67-76	52-76	43-70	30-51	21-35	4-12
	16-19	Very gravelly loam	GC	A-2	0	0-4	32-60	19-60	15-55	11-40	20-31	4-12
	19-39	Very gravelly sandy loam, extremely gravelly coarse sandy loam	GC-GM, GM	A-1	0	0-3	35-65	22-65	16-53	8-29	16-28	2-9
	39-60	Very gravelly loamy coarse sand	SM, GM	A-1	0	4-7	57-66	42-66	24-41	10-18	0-21	NP-3
52: Hondee-----	0-6	Gravelly loam	GC, GC-GM	A-4, A-2	0	0-4	64-72	50-72	42-65	30-47	26-37	7-11
	6-16	Gravelly loam	SC, GC	A-2, A-4	0	0-4	67-76	52-76	43-70	30-51	21-35	4-12
	16-19	Very gravelly loam	GC	A-2	0	0-4	32-60	19-60	15-55	11-40	20-31	4-12
	19-39	Very gravelly sandy loam, extremely gravelly coarse sandy loam	GC-GM, GM	A-1	0	0-3	35-65	22-65	16-53	8-29	16-28	2-9
	39-60	Very gravelly loamy coarse sand	SM, GM	A-1	0	4-7	57-66	42-66	24-41	10-18	0-21	NP-3
53: Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
54:												
Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18
Ricrest-----	0-6	Gravelly silt loam	GC, ML	A-6	0	0	66-82	53-82	46-82	38-69	28-45	9-17
	6-20	Clay loam, silt loam, gravelly silt loam	CL	A-7, A-6	0	0	67-83	53-83	50-83	43-74	36-51	16-22
	20-60	Gravelly loam, gravelly clay loam, gravelly silt loam	SC, CL, GC	A-2, A-6	0	0-7	63-92	33-92	30-92	26-81	31-47	13-21
55:												
Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18
Sprollo-----	0-3	Gravelly silt loam	GC, CL-ML, GC-GM	A-4	0-7	0-7	60-87	36-87	32-82	26-67	24-34	7-11
	3-14	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	1-4	0-8	69-87	37-87	34-82	27-67	23-32	7-11
	14-39	Very cobbly silt loam	CL, CL-ML	A-4	7-16	31-44	79-97	48-97	43-94	34-77	21-30	6-11
	39-49	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
56: Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18
Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
57: Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25
58: Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25
59: Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
59: Dirtyhead-----	0-6	Very gravelly loam	GC	A-2, A-4	0	0	52-61	34-61	29-56	20-40	22-35	6-12
	6-38	Very gravelly loam, very gravelly sandy loam	GC	A-1, A-2	0	0	41-52	27-52	20-43	13-28	21-31	6-12
	38-48	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
60: Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25
Harroun-----	0-7	Very gravelly loam	GC-GM, GM	A-2	0-4	5-14	64-80	45-80	38-73	26-52	20-33	3-10
	7-15	Very gravelly loam	GC-GM, GM	A-2	0-3	14-20	45-80	30-80	25-73	17-53	20-33	3-10
	15-28	Cemented material	---	---	---	---	---	---	---	---	---	---
	28-60	Extremely gravelly sandy loam, very gravelly sandy loam	GC-GM, GM	A-1, A-2	0	12-22	41-70	21-70	15-58	7-32	17-28	2-10
Lanoak-----	0-36	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	36-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19
61: Huffman-----	0-7	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-42	12-19
	7-28	Silt loam, loam	CL	A-6	0	0	100	100	95-100	90-99	30-42	12-19
	28-60	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	37-46	19-25
Wursten-----	0-5	Loam	CL, CL-ML	A-4	0	0	89-100	78-100	67-90	47-65	26-37	7-11
	5-17	Loam	CL, CL-ML	A-4	0	0	89-100	78-100	66-92	46-67	24-35	7-13
	17-31	Loam	CL, CL-ML	A-4	0	0	89-100	78-100	67-90	47-64	22-28	7-10
	31-60	Gravelly loam, loam, fine sandy loam	SC, CL-ML, GC-GM	A-4	0	0-4	67-91	43-91	36-82	25-59	20-28	6-10

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
62: Iphil-----	0-8	Silt loam	CL, ML	A-4	0	0	94-100	88-100	83-100	75-96	20-35	3-12
	8-15	Silt loam	CL	A-4	0	0	94-100	88-100	84-100	77-95	22-33	6-12
	15-60	Silt loam, loam	CL	A-4	0	0	94-100	88-100	84-100	67-82	23-31	7-12
Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
63: Ireland-----	0-2	Very cobbly loam	GC, GC-GM	A-2, A-4	0	22-26	55-75	37-75	32-68	23-50	28-39	9-13
	2-7	Gravelly loam	SC	A-6, A-2, A-4	0	0-4	67-85	38-85	32-77	23-57	26-37	9-13
	7-14	Very gravelly loam, very cobbly silt loam	SC, GC-GM	A-2, A-4	0	10-27	53-89	14-89	12-81	9-59	25-33	9-13
	14-23	Extremely cobbly loam, extremely cobbly sandy loam, extremely stony loam	SC, GC-GM, SC-SM, GC	A-2, A-4	0-32	32-68	50-100	11-100	8-85	5-57	21-34	6-15
	23-33	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
63: Polumar-----	0-6	Gravelly silt loam	SC, CL	A-4	0	3-30	72-96	43-96	39-91	32-75	28-37	9-12
	6-11	Gravelly silt loam, cobbly loam	CL	A-4	0	3-30	72-96	43-96	39-91	32-75	28-37	9-12
	11-18	Very cobbly silt loam, very cobbly loam	CL, SC-SM, SC	A-4	4-13	37-45	75-97	49-97	45-92	36-76	26-35	9-12
	18-22	Very cobbly silt loam, very cobbly loam	CL, SC-SM	A-4	4-13	37-45	74-97	54-97	49-92	39-76	26-35	9-12
	22-46	Extremely cobbly loam	SC, GC-GM	A-2, A-4	15-22	35-43	67-97	44-97	37-88	26-64	23-31	7-12
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
64: Kabear-----	0-9	Very fine sandy loam	ML	A-4	0	0	100	89-100	82-100	46-62	20-34	1-9
	9-45	Fine sandy loam, sandy loam	ML, SC-SM	A-4	0	0	100	89-100	76-98	35-52	17-34	1-11
	45-60	Fine sandy loam, loamy fine sand	SM	A-2, A-4	0	0	100	89-100	78-95	36-48	0-26	NP-6
Staberg-----	0-10	Loam	CL, CL-ML	A-4	0	0-4	85-95	71-95	59-87	41-63	25-37	6-12
	10-23	Gravelly loam	SC, CL	A-6	0	0-4	75-83	62-83	54-75	39-56	29-39	12-15
	23-33	Very cobbly loam, extremely cobbly loam	SC, CL	A-6	0	28-49	72-98	45-98	38-92	28-70	31-45	12-19
	33-38	Cobbly sandy loam, very cobbly sandy loam	SC-SM, ML	A-4	0	32-51	66-100	25-100	18-83	9-45	17-28	2-10
	38-48	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
64: Copenhagen-----	0-7	Very channery loam	GC	A-2	0	14-19	28-52	6-51	6-51	4-42	29-38	12-16
	7-13	Very gravelly loam, very channery loam, extremely channery loam	GC	A-2, A-6	0	11-21	31-61	7-61	7-61	5-50	28-38	12-16
	13-23	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
65: Kabear-----	0-9	Very fine sandy loam	ML	A-4	0	0	100	89-100	82-100	46-62	20-34	1-9
	9-45	Fine sandy loam, sandy loam	SC-SM, ML	A-4	0	0	100	89-100	76-98	35-52	17-34	1-11
	45-60	Fine sandy loam, loamy fine sand	SM	A-2, A-4	0	0	100	89-100	78-95	36-48	0-26	NP-6
Staberg-----	0-10	Loam	CL, CL-ML	A-4	0	0-4	85-95	71-95	59-87	41-63	25-37	6-12
	10-23	Gravelly loam	SC, CL	A-6	0	0-4	75-83	62-83	54-75	39-56	29-39	12-15
	23-33	Very cobbly loam, extremely cobbly loam	SC, CL	A-6	0	28-49	72-98	45-98	38-92	28-70	31-45	12-19
	33-38	Cobbly sandy loam, very cobbly sandy loam	SC-SM, ML	A-4	0	32-51	66-100	25-100	18-83	9-45	17-28	2-10
	38-48	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Copenhagen-----	0-7	Very channery loam	GC	A-2	0	14-19	28-52	6-51	6-51	4-42	29-38	12-16
	7-13	Very gravelly loam, very channery loam, extremely channery loam	GC	A-2, A-6	0	11-21	31-61	7-61	7-61	5-50	28-38	12-16
	13-23	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
66: Kearns-----	0-16	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	88-96	30-42	10-16
	16-38	Silt loam	CL	A-6	0	0	100	100	95-100	88-96	31-44	12-18
	38-60	Silt loam, very fine sandy loam	CL	A-6, A-4	0	0	100	100	97-100	89-93	26-32	9-13
67: Kearnsar-----	0-9	Silt loam	CL	A-6	0	0	100	100	96-100	89-96	33-45	12-17
	9-23	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	39-51	19-25
	23-27	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	91-99	38-47	19-25
	27-45	Silt loam, silty clay loam	CL	A-6	0	0	100	100	98-100	93-100	35-45	16-23
	45-60	Silt loam, silty clay loam	CL	A-6	0	0	100	100	98-100	93-100	34-44	16-23
Battle Creek----	0-8	Silty clay loam	CH, CL	A-7	0	0	100	100	94-100	90-98	45-58	22-28
	8-11	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	100	89-100	84-97	47-61	23-32
	11-19	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	19-40	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	40-60	Silty clay, silty clay loam	CH	A-7	0	0	100	100	89-100	85-100	43-63	25-40
68: Kidman-----	0-12	Fine sandy loam	SC-SM, SM	A-4	0	0	95-100	89-100	78-96	38-51	22-35	3-10
	12-25	Fine sandy loam, very fine sandy loam, loam	SC-SM, ML	A-4	0	0	95-100	89-100	78-99	32-48	18-33	3-12
	25-44	Very fine sandy loam, fine sandy loam, loam	CL-ML, ML	A-4	0	0	95-100	89-100	83-100	47-62	16-28	2-10
	44-60	Very fine sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	95-100	89-100	83-100	47-62	16-27	2-10

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
69: Kidman-----	0-12	Fine sandy loam	SC-SM, SM	A-4	0	0	95-100	89-100	78-96	38-51	22-35	3-10
	12-25	Fine sandy loam, very fine sandy loam, loam	SC-SM, ML	A-4	0	0	95-100	89-100	78-99	32-48	18-33	3-12
	25-44	Very fine sandy loam, fine sandy loam, loam	CL-ML, ML	A-4	0	0	95-100	89-100	83-100	47-62	16-28	2-10
	44-60	Very fine sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	95-100	89-100	83-100	47-62	16-27	2-10
70: Kidman-----	0-12	Fine sandy loam	SC-SM, SM	A-4	0	0	95-100	89-100	78-96	38-51	22-35	3-10
	12-25	Fine sandy loam, very fine sandy loam, loam	SC-SM, ML	A-4	0	0	95-100	89-100	78-99	32-48	18-33	3-12
	25-44	Very fine sandy loam, fine sandy loam, loam	CL-ML, ML	A-4	0	0	95-100	89-100	83-100	47-62	16-28	2-10
	44-60	Very fine sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	95-100	89-100	83-100	47-62	16-27	2-10
71: Kidman, wet-----	0-12	Fine sandy loam	SC-SM, SM	A-4	0	0	95-100	89-100	78-96	38-51	22-35	3-10
	12-25	Fine sandy loam, very fine sandy loam, loam	ML, SC-SM	A-4	0	0	95-100	89-100	78-99	32-48	18-33	3-12
	25-44	Very fine sandy loam, fine sandy loam, loam	ML, CL-ML	A-4	0	0	95-100	89-100	83-100	47-62	16-28	2-10
	44-60	Very fine sandy loam, fine sandy loam	SC-SM, SM, CL-ML	A-4	0	0	95-100	89-100	83-100	47-62	16-27	2-10

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
72:												
Kidman-----	0-12	Fine sandy loam	SC-SM, SM	A-4	0	0	95-100	89-100	78-96	38-51	22-35	3-10
	12-25	Fine sandy loam, very fine sandy loam, loam	SC-SM, ML	A-4	0	0	95-100	89-100	78-99	32-48	18-33	3-12
	25-44	Very fine sandy loam, fine sandy loam, loam	CL-ML, ML	A-4	0	0	95-100	89-100	83-100	47-62	16-28	2-10
	44-60	Very fine sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	95-100	89-100	83-100	47-62	16-27	2-10
Sterling-----	0-8	Gravelly loam	SC, ML	A-4	0	0	72-100	40-100	33-93	23-68	25-39	6-13
	8-66	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0	48-74	16-74	13-70	9-51	21-39	6-15
73:												
Lando-----	0-5	Silt loam	CL	A-6	0	0	89-100	89-100	85-100	79-96	33-44	12-18
	5-14	Silty clay loam, silt loam	CL	A-6, A-7	0	0	95-100	89-100	79-100	75-100	31-49	12-25
	14-33	Silty clay loam	CL	A-7	0	0	95-100	89-100	85-100	81-99	39-49	19-25
	33-60	Silty clay loam	CL	A-7	0	0	95-100	89-100	83-100	80-100	37-53	19-29
74:												
Lanoak-----	0-36	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	36-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19
75:												
Lanoak-----	0-36	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	36-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19
76:												
Lanoak-----	0-36	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	36-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
76: Broadhead-----	0-7	Silt loam	CL	A-6, A-4	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	80-100	76-100	46-64	25-36
77: Lanoak-----	0-36	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	36-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19
Broadhead-----	0-7	Silt loam	CL	A-6, A-4	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	80-100	76-100	46-64	25-36
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
78: Lanoak-----	0-21	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	21-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
79: Lanoak-----	0-36	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	36-50	Silt loam	ML	A-4	0	0	100	100	94-100	86-96	27-41	6-13
	50-60	Silt loam	CL	A-6	0	0	100	100	95-100	90-99	31-45	12-19

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
79: Thatcher-----	0-8	Loam	CL	A-6, A-4	0	0	95-100	79-100	76-100	59-84	30-41	10-17
	8-21	Silty clay loam, clay loam	CL	A-7, A-6	0	0	95-100	89-100	86-100	82-99	38-47	19-24
	21-60	Silt loam, fine sandy loam, loam	CL, CL-ML, SC-SM	A-6, A-4	0	0	95-100	89-100	83-100	77-99	23-37	7-17
80: Layton-----	0-13	Loamy fine sand	SC-SM, SM	A-2, A-4	0	0	100	100	91-98	25-32	20-32	2-7
	13-19	Loamy fine sand	SM	A-2, A-4	0	0	100	100	91-98	25-32	0-31	NP-6
	19-34	Loamy sand	SM	A-2	0	0	100	100	77-84	19-26	0-24	NP-6
	34-64	Loamy sand	SM	A-2	0	0	100	100	77-84	19-26	0-24	NP-6
81: Layton-----	0-13	Loamy fine sand	SC-SM, SM	A-2, A-4	0	0	100	100	91-98	25-32	20-32	2-7
	13-19	Loamy fine sand	SM	A-2, A-4	0	0	100	100	91-98	25-32	0-31	NP-6
	19-34	Loamy sand	SM	A-2	0	0	100	100	77-84	19-26	0-24	NP-6
	34-64	Loamy sand	SM	A-2	0	0	100	100	77-84	19-26	0-24	NP-6
82: Lizdale-----	0-6	Very stony loam	SC, GM	A-6	18-28	5-22	70-89	55-89	47-81	33-59	28-39	9-13
	6-13	Very gravelly silt loam	GC	A-2, A-6	0	10-21	58-77	33-77	30-74	24-61	26-37	9-13
	13-52	Very gravelly loam, very gravelly sandy loam	SC-SM, GM, GC-GM	A-2, A-4, A-6	0-7	13-20	57-80	30-80	22-67	13-45	16-29	2-11
	52-64	Gravelly sandy loam	SC-SM, GM, SM	A-1, A-2	0	0-8	66-83	45-83	33-67	16-35	16-25	2-7
	64-76	Extremely gravelly sandy loam	SC-SM, GM, GW-GC	A-2, A-1	0	0-37	18-42	7-36	5-30	2-16	16-27	2-10

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
83: Lizdale-----	0-6	Very stony loam	SC, GM	A-6	18-28	5-22	70-89	55-89	47-81	33-59	28-39	9-13
	6-13	Very gravelly silt loam	GC	A-2, A-6	0	10-21	58-77	33-77	30-74	24-61	26-37	9-13
	13-52	Very gravelly loam, very gravelly sandy loam	SC-SM, GM, GC-GM	A-2, A-4, A-6	0-7	13-20	57-80	30-80	22-67	13-45	16-29	2-11
	52-64	Gravelly sandy loam	SC-SM, GM, SM	A-1, A-2	0	0-8	66-83	45-83	33-67	16-35	16-25	2-7
	64-76	Extremely gravelly sandy loam	SC-SM, GM, GW-GC	A-2, A-1	0	0-37	18-42	7-36	5-30	2-16	16-27	2-10
Searla-----	0-9	Gravelly loam	SC, GC-GM, SC-SM	A-4	0	0-12	70-88	50-88	42-81	30-59	26-39	7-13
	9-28	Very gravelly clay loam, very gravelly sandy clay loam, gravelly clay loam	GC	A-7, A-2, A-6	0	4-14	57-76	30-76	26-73	20-57	36-45	18-25
	28-60	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	SC, GC-GM, GC	A-2, A-4	0	8-21	42-100	11-100	8-86	5-59	16-33	2-15
84: Logan-----	0-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-15	Silty clay loam	MH	A-7	0	0	100	100	95-100	91-100	45-62	18-25
	15-28	Silty clay loam	CL	A-6, A-7	0	0	100	100	93-100	89-100	38-51	19-29
	28-47	Silty clay loam	CL	A-6, A-7	0	0	100	100	93-100	89-100	37-50	19-29
	47-62	Silty clay loam	CL	A-6, A-7	0	0	100	100	93-100	89-100	37-50	19-29



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
85: Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Lizdale-----	0-6	Very stony loam	SC, GM	A-6	18-28	5-22	70-89	55-89	47-81	33-59	28-39	9-13
	6-13	Very gravelly silt loam	GC	A-2, A-6	0	10-21	58-77	33-77	30-74	24-61	26-37	9-13
	13-52	Very gravelly loam, very gravelly sandy loam	SC-SM, GM, GC-GM	A-2, A-4, A-6	0-7	13-20	57-80	30-80	22-67	13-45	16-29	2-11
	52-64	Gravelly sandy loam	SC-SM, GM, SM	A-1, A-2	0	0-8	66-83	45-83	33-67	16-35	16-25	2-7
	64-76	Extremely gravelly sandy loam	SC-SM, GM, GW-GC	A-2, A-1	0	0-37	18-42	7-36	5-30	2-16	16-27	2-10
86: Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
86: Ricrest-----	0-6	Gravelly silt loam	GC, ML	A-6	0	0	66-82	53-82	46-82	38-69	28-45	9-17
	6-20	Clay loam, silt loam, gravelly silt loam	CL	A-7, A-6	0	0	67-83	53-83	50-83	43-74	36-51	16-22
	20-60	Gravelly loam, gravelly clay loam, gravelly silt loam	SC, CL, GC	A-2, A-6	0	0-7	63-92	33-92	30-92	26-81	31-47	13-21
87: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
88: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
89: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
90: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
Bancroft-----	0-7	Silt loam	CL	A-6, A-4	0	0	100	100	97-100	89-94	29-37	9-13
	7-37	Silt loam, silty clay loam	CL	A-6	0	0	100	100	88-100	83-97	28-45	12-22
	37-60	Silt loam	CL, CL-ML	A-4	0	0	100	100	94-100	86-96	21-33	6-13
91: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
Broadhead-----	0-7	Silt loam	CL	A-6, A-4	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	80-100	76-100	46-64	25-36

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
92: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
Broadhead-----	0-7	Silt loam	CL	A-6, A-4	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	80-100	76-100	46-64	25-36
93: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
94: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
Yeates Hollow---	0-8	Cobbly silt loam	CL	A-4, A-6	0	16-29	85-96	66-96	61-91	50-76	30-39	10-13
	8-16	Extremely cobbly loam	GC, SC	A-2, A-6	8-18	42-46	64-93	45-93	39-87	29-66	33-42	13-19
	16-19	Extremely cobbly clay loam, extremely stony clay loam	GC, SC	A-2, A-7	9-32	35-37	45-100	15-100	13-94	10-74	39-49	19-25
	19-29	Very cobbly clay, very cobbly clay loam	CH, CL	A-7	0-13	22-45	65-98	50-98	43-98	34-82	46-62	25-36
	29-60	Very gravelly clay loam, very cobbly clay, extremely stony clay	CH, CL, GC, SC	A-2, A-7	0	11-21	62-100	22-100	20-100	16-88	45-62	25-36
95: Maplecreek-----	0-14	Fine sandy loam	SC, ML, SM	A-4	0	0	100	100	89-97	39-47	25-37	6-12
	14-35	Fine sandy loam	SC	A-4	0	0	100	100	89-97	39-47	21-33	6-12
	35-60	Loamy fine sand, fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	100	92-97	25-30	16-23	2-6
96: Maplecreek-----	0-14	Fine sandy loam	SC, ML, SM	A-4	0	0	100	100	89-97	39-47	25-37	6-12
	14-35	Fine sandy loam	SC	A-4	0	0	100	100	89-97	39-47	21-33	6-12
	35-60	Loamy fine sand, fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	100	92-97	25-30	16-23	2-6

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
96: Layton-----	0-13	Loamy fine sand	SC-SM, SM	A-2	0	0	100	100	91-98	25-32	20-32	2-7
	13-19	Loamy fine sand	SM	A-2, A-4	0	0	100	100	91-98	25-32	0-31	NP-6
	19-34	Loamy sand	SM	A-2	0	0	100	100	77-84	19-26	0-24	NP-6
	34-64	Loamy sand	SM	A-2	0	0	100	100	77-84	19-26	0-24	NP-6
97: Merkley-----	0-5	Silt loam	CL, CL-ML	A-6, A-4	0	0	100	88-100	83-100	76-96	26-41	7-15
	5-31	Silt loam, loam	CL, CL-ML	A-4	0	0	100	90-100	87-100	65-79	20-29	6-11
	31-50	Fine sandy loam, sandy loam	SC-SM, SM	A-4	0	0	100	91-100	79-96	36-49	0-25	NP-7
	50-61	Very gravelly loamy sand	SW-SM, GM, SM	A-1, A-2	0	0	68-100	27-100	20-80	7-31	0-19	NP-2
Lago-----	0-9	Silt loam	CL	A-6	0	0	100	100	95-100	88-96	33-44	11-18
	9-16	Silt loam	CL	A-6	0	0	100	100	95-100	88-96	29-42	12-18
	16-45	Silt loam, silty clay loam	CL	A-6	0	0	100	100	95-100	90-100	32-46	15-25
	45-60	Sandy loam, fine sandy loam, silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	71-87	43-59	20-37	6-18
Bear Lake-----	0-11	Silty clay loam	ML	A-7, A-4, A-6	0	0	100	100	96-100	89-95	42-57	19-23
	11-20	Silty clay loam	CL	A-7	0	0	100	100	96-100	92-98	39-50	19-24
	20-26	Silt loam, silty clay loam	CL	A-4, A-6, A-7	0	0	100	100	84-100	78-97	26-45	10-24
	26-60	Silty clay loam, sandy loam, very fine sandy loam	GM, GP-GM, SM, CL	A-2, A-4, A-6	0	0	100	100	84-100	78-97	24-43	9-24
98: Moonlight-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-26	Silt loam	CL-ML, ML	A-4	0	0	87-95	76-91	68-87	55-72	31-42	7-12
	26-62	Silt loam	CL, CL-ML	A-4	0	0	87-95	76-91	68-87	55-72	24-33	7-12

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
98: Camelback-----	0-3	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	3-14	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	14-22	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	34-42	15-18
	22-32	Very gravelly silty clay loam	GC	A-7	0	0	31-67	28-66	27-66	24-59	39-46	19-22
	32-50	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	32-40	13-18
	50-61	Very gravelly loam	SC, GC	A-2	0	0	38-66	36-65	30-61	21-45	24-35	9-16
99: Niter-----	0-8	Silty clay loam	CH	A-7	0	0	100	100	94-100	84-94	43-57	21-29
	8-19	Silty clay loam, silty clay	CH	A-7	0	0	100	100	94-100	90-100	48-71	25-39
	19-60	Silty clay, silty clay loam, clay	CH	A-7	0	0	100	100	87-100	83-100	47-79	25-46
Brifox-----	0-7	Silty clay	CH	A-7	0	0	100	100	93-100	82-92	51-66	29-36
	7-18	Silty clay loam, silty clay	CH	A-7	0	0	100	100	89-100	85-100	49-73	25-38
	18-60	Silty clay, clay, silty clay loam	CH	A-7	0	0	100	100	88-100	85-100	51-80	28-46
100: Northwater-----	0-12	Gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0-7	55-85	35-85	33-85	19-51	23-35	2-7
	12-28	Extremely gravelly loam	GM, GC-GM	A-2	9-31	0-42	31-92	11-92	9-84	6-60	25-37	6-11
	28-46	Extremely gravelly loam	GC	A-2	7-31	17-35	28-61	11-61	10-56	7-42	31-38	14-18
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
100: Foxol-----	0-3	Very stony loam	SC, SC-SM, GC	A-6	26-34	17-24	62-97	50-97	43-89	31-66	31-42	11-16
	3-9	Very stony loam	SC, GC	A-6	26-34	17-24	62-97	50-97	43-89	31-66	31-42	11-16
	9-17	Extremely stony loam	SC, GC-GM	A-2	38-49	22-25	66-100	36-100	30-94	22-71	29-41	12-19
	17-27	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
101: Northwater-----	0-12	Gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0-7	55-85	35-85	33-85	19-51	23-35	2-7
	12-28	Extremely gravelly loam	GM, GC-GM	A-2	9-31	0-42	31-92	11-92	9-84	6-60	25-37	6-11
	28-46	Extremely gravelly loam	GC	A-2	7-31	17-35	28-61	11-61	10-56	7-42	31-38	14-18
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
101: Povey-----	0-17	Gravelly silt loam	SM, CL-ML, GC-GM, GM, ML	A-4	0	0-4	73-85	51-85	45-82	36-67	27-40	6-12
	17-38	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GM, GC-GM	A-2	0-3	0-32	38-75	14-75	12-69	8-51	25-43	6-13
	38-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GW-GC, GC-GM	A-1, A-2	0-14	10-26	27-85	7-85	5-69	2-37	20-33	4-12
102: Northwater-----	0-12	Gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0-7	55-85	35-85	33-85	19-51	23-35	2-7
	12-28	Extremely gravelly loam	GM, GC-GM	A-2	9-31	0-42	31-92	11-92	9-84	6-60	25-37	6-11
	28-46	Extremely gravelly loam	GC	A-2	7-31	17-35	28-61	11-61	10-56	7-42	31-38	14-18
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Povey-----	0-17	Gravelly silt loam	SM, CL-ML, GC-GM, GM, ML	A-4	0	0-4	73-85	51-85	45-82	36-67	27-40	6-12
	17-38	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GM, GC-GM	A-2	0-3	0-32	38-75	14-75	12-69	8-51	25-43	6-13
	38-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GW-GC, GC-GM	A-1, A-2	0-14	10-26	27-85	7-85	5-69	2-37	20-33	4-12

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
103: Nyman-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-6	Channery silt loam	GM, ML	A-4	0	12-29	60-86	59-86	56-86	49-78	25-38	4-10
	6-12	Channery loam, channery silt loam	SC-SM, GM, CL-ML	A-4	0-11	10-43	26-89	24-88	23-88	18-71	23-36	4-10
	12-20	Channery loam	GC-GM, GM, CL-ML	A-2, A-4	0-11	10-43	26-89	24-88	23-88	18-71	21-34	4-10
	20-25	Very channery loam	GC-GM	A-2, A-4	6-9	27-43	26-68	25-67	23-67	18-54	20-31	4-10
	25-36	Very channery loam	GC-GM	A-2, A-4	6-9	27-43	26-68	25-67	24-67	18-52	20-26	4-7
	36-46	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Copenhagen-----	0-7	Very channery loam	GC	A-2	0	14-19	28-52	6-51	6-51	4-42	29-38	12-16
	7-13	Very gravelly loam, very channery loam, extremely channery loam	GC	A-2, A-6	0	11-21	31-61	7-61	7-61	5-50	28-38	12-16
	13-23	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
104:												
Oxford-----	0-5	Silty clay	CH	A-7	0	0	100	100	97-100	92-97	51-59	29-33
	5-26	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	26-63	Silty clay, clay	CH	A-7	0	0	100	100	80-100	77-100	50-74	29-48
Banida-----	0-6	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	85-97	43-53	22-28
	6-22	Silty clay, clay	CH	A-7	0	0	100	100	92-100	89-100	51-68	29-40
	22-35	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	35-64	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
105:												
Oxford-----	0-5	Silty clay	CH	A-7	0	0	100	100	97-100	92-97	51-59	29-33
	5-26	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	26-63	Silty clay, clay	CH	A-7	0	0	100	100	80-100	77-100	50-74	29-48
Banida-----	0-6	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	85-97	43-53	22-28
	6-22	Silty clay, clay	CH	A-7	0	0	100	100	92-100	89-100	51-68	29-40
	22-35	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	35-64	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
106:												
Oxford-----	0-5	Silty clay	CH	A-7	0	0	100	100	97-100	92-97	51-59	29-33
	5-26	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	26-63	Silty clay, clay	CH	A-7	0	0	100	100	80-100	77-100	50-74	29-48
Banida-----	0-6	Silty clay loam	CL	A-7	0	0	100	95-100	90-100	85-97	43-53	22-28
	6-22	Silty clay, clay	CH	A-7	0	0	100	100	92-100	89-100	51-68	29-40
	22-35	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	35-64	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
107:												
Oxford-----	0-5	Silty clay	CH	A-7	0	0	100	100	97-100	92-97	51-59	29-33
	5-26	Silty clay, clay	CH, CL	A-7	0	0	100	100	92-100	89-100	49-64	29-40
	26-63	Silty clay, clay	CH	A-7	0	0	100	100	80-100	77-100	50-74	29-48
Gullied land----	0-60	Stratified loam to silty clay loam	---	---	---	---	---	---	---	---	---	---
108:												
Parkay-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-3	Gravelly silt loam	SM, GM, ML	A-6, A-4	0	0	71-83	46-83	41-80	33-66	30-43	8-13
	3-12	Gravelly silt loam	SC, CL, GC	A-6	0	0-4	67-85	38-85	34-83	29-70	33-45	12-17
	12-21	Very gravelly silt loam	GC	A-6	0	9-18	56-69	35-69	32-67	26-57	33-45	12-17
	21-29	Very gravelly loam	GC	A-2, A-6	0	9-22	55-71	33-71	29-65	22-50	34-45	15-19
	29-47	Very gravelly clay loam	GC	A-6, A-7, A-2	0	0-17	57-72	37-72	32-68	24-54	37-47	19-25
	47-57	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Povey-----	0-17	Gravelly silt loam	SM, CL-ML, GC-GM, GM, ML	A-4	0	0-4	73-85	51-85	45-82	36-67	27-40	6-12
	17-38	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GM, GC-GM	A-2	0-3	0-32	38-75	14-75	12-69	8-51	25-43	6-13
	38-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GW-GC, GC-GM	A-1, A-2	0-14	10-26	27-85	7-85	5-69	2-37	20-33	4-12

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
109: Parleys-----	0-4	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	30-44	10-18
	4-13	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	27-42	10-18
	13-18	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-49	19-25
	18-35	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-47	19-25
	35-50	Silty clay loam	CL	A-7, A-6	0	0	95-100	89-100	85-100	81-99	37-46	19-25
	50-60	Silt loam	CL	A-6	0	0	94-100	89-100	84-100	78-97	25-37	10-18
110: Parleys-----	0-4	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	30-44	10-18
	4-13	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	27-42	10-18
	13-18	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-49	19-25
	18-35	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-47	19-25
	35-50	Silty clay loam	CL	A-7, A-6	0	0	95-100	89-100	85-100	81-99	37-46	19-25
	50-60	Silt loam	CL	A-6	0	0	94-100	89-100	84-100	78-97	25-37	10-18
111: Parleys, wet----	0-4	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	30-44	10-18
	4-13	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	27-42	10-18
	13-18	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-49	19-25
	18-35	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-47	19-25
	35-50	Silty clay loam	CL	A-7, A-6	0	0	95-100	89-100	85-100	81-99	37-46	19-25
	50-60	Silt loam	CL	A-6	0	0	94-100	89-100	84-100	78-97	25-37	10-18
112: Pavohroo-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-3	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	3-6	Silt loam	ML	A-4	0	0	89-94	78-94	69-91	55-75	27-45	4-11
	6-29	Silt loam	CL	A-6	0	0-10	89-94	77-94	70-92	58-77	29-41	12-17
	29-63	Loam, gravelly loam, stony loam	SC, CL	A-6	0-13	0-16	75-96	50-96	42-89	31-66	28-37	12-17

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
112: Sedgway-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-2	Moderately decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	2-7	Gravelly silt loam	CL	A-6	0	0-9	75-82	64-82	57-81	47-68	29-43	9-17
	7-23	Very cobbly silt loam, very cobbly loam	CL, SC	A-6, A-4	4-14	27-34	68-93	46-93	38-86	31-72	26-39	9-17
	23-62	Very cobbly clay loam, very cobbly silty clay loam	CL, GC	A-7, A-6	4-14	27-37	56-88	35-88	30-84	24-67	37-46	19-24
Toponce-----	0-3	Silt loam	ML	A-4, A-6	0	0	89-100	78-100	69-99	57-83	33-47	9-17
	3-14	Silt loam, silty clay loam	CL	A-7	0	0	89-100	78-100	71-100	62-90	35-49	13-21
	14-60	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0	90-100	79-100	60-100	58-98	46-72	25-44
113: Picabo-----	0-4	Silt loam	CL, ML	A-4	0	0	100	100	97-100	89-93	28-40	9-12
	4-16	Silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	87-95	22-37	6-12
	16-45	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	87-95	20-31	6-12
	45-51	Silt loam	CL	A-4, A-6	0	0	100	100	95-100	87-95	20-30	6-12
	51-65	Silt loam	CL	A-4	0	0	100	100	97-100	88-93	20-27	6-10
Thatcherflats---	0-4	Silt loam	CL, CL-ML	A-4	0	0	100	100	96-100	87-94	23-35	6-12
	4-16	Silty clay loam, silty clay	CH, CL	A-6, A-7	0	0	100	100	92-100	87-100	40-56	20-31
	16-61	Silt loam, silty clay loam	CL	A-7	0	0	100	100	94-100	88-98	37-48	18-25
114: Pits, gravel----	0-60	Gravel, cobbles	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
115: Pollynnot-----	0-9	Silt loam	CL	A-6	0	0	100	88-100	79-98	65-82	28-42	9-15
	9-13	Silt loam	CL	A-4, A-6	0	0	100	88-100	79-98	65-82	26-37	9-16
	13-15	Silt loam	CL	A-6	0	0	90-100	71-100	63-99	54-85	28-39	12-19
	15-26	Silty clay loam	CL	A-7	0	0	90-100	71-100	68-100	59-90	37-46	19-25
	26-44	Silt loam	CL	A-6	0	0	90-100	71-100	64-97	53-82	27-36	12-17
	44-61	Loamy fine sand	SM, SC-SM	A-2	0	0	100	100	91-98	25-32	16-25	2-7
116: Pollynnot-----	0-9	Silt loam	CL	A-6	0	0	100	88-100	79-98	65-82	28-42	9-15
	9-13	Silt loam	CL	A-4, A-6	0	0	100	88-100	79-98	65-82	26-37	9-16
	13-15	Silt loam	CL	A-6	0	0	90-100	71-100	63-99	54-85	28-39	12-19
	15-26	Silty clay loam	CL	A-7	0	0	90-100	71-100	68-100	59-90	37-46	19-25
	26-44	Silt loam	CL	A-6	0	0	90-100	71-100	64-97	53-82	27-36	12-17
	44-61	Loamy fine sand	SM, SC-SM	A-2	0	0	100	100	91-98	25-32	16-25	2-7
117: Pollynnot-----	0-9	Silt loam	CL	A-6	0	0	100	88-100	79-98	65-82	28-42	9-15
	9-13	Silt loam	CL	A-4, A-6	0	0	100	88-100	79-98	65-82	26-37	9-16
	13-15	Silt loam	CL	A-6	0	0	90-100	71-100	63-99	54-85	28-39	12-19
	15-26	Silty clay loam	CL	A-7	0	0	90-100	71-100	68-100	59-90	37-46	19-25
	26-44	Silt loam	CL	A-6	0	0	90-100	71-100	64-97	53-82	27-36	12-17
	44-61	Loamy fine sand	SM, SC-SM	A-2	0	0	100	100	91-98	25-32	16-25	2-7
118: Pollynnot-----	0-9	Silt loam	CL	A-6	0	0	100	88-100	79-98	65-82	28-42	9-15
	9-13	Silt loam	CL	A-4, A-6	0	0	100	88-100	79-98	65-82	26-37	9-16
	13-15	Silt loam	CL	A-6	0	0	90-100	71-100	63-99	54-85	28-39	12-19
	15-26	Silty clay loam	CL	A-7	0	0	90-100	71-100	68-100	59-90	37-46	19-25
	26-44	Silt loam	CL	A-6	0	0	90-100	71-100	64-97	53-82	27-36	12-17
	44-61	Loamy fine sand	SM, SC-SM	A-2	0	0	100	100	91-98	25-32	16-25	2-7

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
119: Polumar-----	0-6	Gravelly silt loam	SC, CL	A-4	0	3-30	72-96	43-96	39-91	32-75	28-37	9-12
	6-11	Gravelly silt loam, cobbly loam	CL	A-4	0	3-30	72-96	43-96	39-91	32-75	28-37	9-12
	11-18	Very cobbly silt loam, very cobbly loam	CL, SC-SM, SC	A-4	4-13	37-45	75-97	49-97	45-92	36-76	26-35	9-12
	18-22	Very cobbly silt loam, very cobbly loam	CL, SC-SM	A-4	4-13	37-45	74-97	54-97	49-92	39-76	26-35	9-12
	22-46	Extremely cobbly loam	SC, GC-GM	A-2, A-4	15-22	35-43	67-97	44-97	37-88	26-64	23-31	7-12
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Ireland-----	0-2	Very cobbly loam	GC, GC-GM	A-2, A-4	0	22-26	55-75	37-75	32-68	23-50	28-39	9-13
	2-7	Gravelly loam	SC	A-6, A-2, A-4	0	0-4	67-85	38-85	32-77	23-57	26-37	9-13
	7-14	Very gravelly loam, very cobbly silt loam	SC, GC-GM	A-2, A-4	0	10-27	53-89	14-89	12-81	9-59	25-33	9-13
	14-23	Extremely cobbly loam, extremely cobbly sandy loam, extremely stony loam	SC, GC-GM, SC-SM, GC	A-2, A-4	0-32	32-68	50-100	11-100	8-85	5-57	21-34	6-15
	23-33	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
120: Polumar-----	0-6	Gravelly silt loam	SC, CL	A-4	0	3-30	72-96	43-96	39-91	32-75	28-37	9-12
	6-11	Gravelly silt loam, cobbly loam	CL	A-4	0	3-30	72-96	43-96	39-91	32-75	28-37	9-12
	11-18	Very cobbly silt loam, very cobbly loam	CL, SC-SM, SC	A-4	4-13	37-45	75-97	49-97	45-92	36-76	26-35	9-12
	18-22	Very cobbly silt loam, very cobbly loam	CL, SC-SM	A-4	4-13	37-45	74-97	54-97	49-92	39-76	26-35	9-12
	22-46	Extremely cobbly loam	SC, GC-GM	A-2, A-4	15-22	35-43	67-97	44-97	37-88	26-64	23-31	7-12
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Sprollo-----	0-3	Gravelly silt loam	GC, CL-ML, GC-GM	A-4	0-7	0-7	60-87	36-87	32-82	26-67	24-34	7-11
	3-14	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	1-4	0-8	69-87	37-87	34-82	27-67	23-32	7-11
	14-39	Very cobbly silt loam	CL, CL-ML	A-4	7-16	31-44	79-97	48-97	43-94	34-77	21-30	6-11
	39-49	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Ireland-----	0-2	Very cobbly loam	GC, GC-GM	A-2, A-4	0	22-26	55-75	37-75	32-68	23-50	28-39	9-13
	2-7	Gravelly loam	SC	A-6, A-2, A-4	0	0-4	67-85	38-85	32-77	23-57	26-37	9-13
	7-14	Very gravelly loam, very cobbly silt loam	SC, GC-GM	A-2, A-4	0	10-27	53-89	14-89	12-81	9-59	25-33	9-13
	14-23	Extremely cobbly loam, extremely cobbly sandy loam, extremely stony loam	SC, GC-GM, SC-SM, GC	A-2, A-4	0-32	32-68	50-100	11-100	8-85	5-57	21-34	6-15
	23-33	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
121: Povey-----	0-17	Gravelly silt loam	SM, CL-ML, GC-GM, GM, ML	A-4	0	0-4	73-85	51-85	45-82	36-67	27-40	6-12
	17-38	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GM, GC-GM	A-2	0-3	0-32	38-75	14-75	12-69	8-51	25-43	6-13
	38-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GW-GC, GC-GM	A-1, A-2	0-14	10-26	27-85	7-85	5-69	2-37	20-33	4-12
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25
Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
122: Povey-----	0-17	Gravelly silt loam	SM, CL-ML, GC-GM, GM, ML	A-4	0	0-4	73-85	51-85	45-82	36-67	27-40	6-12
	17-38	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GM, GC-GM	A-2	0-3	0-32	38-75	14-75	12-69	8-51	25-43	6-13
	38-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GW-GC, GC-GM	A-1, A-2	0-14	10-26	27-85	7-85	5-69	2-37	20-33	4-12
Parkay-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-3	Gravelly silt loam	SM, GM, ML	A-6, A-4	0	0	71-83	46-83	41-80	33-66	30-43	8-13
	3-12	Gravelly silt loam	SC, CL, GC	A-6	0	0-4	67-85	38-85	34-83	29-70	33-45	12-17
	12-21	Very gravelly silt loam	GC	A-6	0	9-18	56-69	35-69	32-67	26-57	33-45	12-17
	21-29	Very gravelly loam	GC	A-2, A-6	0	9-22	55-71	33-71	29-65	22-50	34-45	15-19
	29-47	Very gravelly clay loam	GC	A-6, A-7, A-2	0	0-17	57-72	37-72	32-68	24-54	37-47	19-25
	47-57	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
123: Preston-----	0-8	Fine sand	SP-SM, SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	8-15	Fine sand	SP-SM, SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	15-65	Loamy fine sand, fine sand, sand	SC-SM, SM	A-2	0	0	100	100	91-98	25-32	0-23	NP-6
124: Preston-----	0-8	Fine sand	SP-SM, SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	8-15	Fine sand	SP-SM, SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	15-65	Loamy fine sand, fine sand, sand	SC-SM, SM	A-2	0	0	100	100	91-98	25-32	0-23	NP-6

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
125: Preston-----	0-8	Fine sand	SM, SP-SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	8-15	Fine sand	SM, SP-SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	15-65	Loamy fine sand, fine sand, sand	SC-SM, SM	A-2	0	0	100	100	91-98	25-32	0-23	NP-6
126: Preston-----	0-8	Fine sand	SM, SP-SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	8-15	Fine sand	SM, SP-SM	A-2	0	0	100	100	92-96	10-14	0-20	NP-2
	15-65	Loamy fine sand, fine sand, sand	SC-SM, SM	A-2	0	0	100	100	91-98	25-32	0-23	NP-6
Xerorthents----	0-3	Gravelly loam	SC, GC	A-4, A-6	0	0-12	26-94	23-94	18-88	13-66	20-37	6-17
	3-11	Extremely channery loam	SC, GC	A-2	0	27-45	7-65	4-64	3-60	2-45	20-37	6-17
	11-21	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
127: Ricrest-----	0-6	Gravelly silt loam	GC, ML	A-6	0	0	66-82	53-82	46-82	38-69	28-45	9-17
	6-20	Clay loam, silt loam, gravelly silt loam	CL	A-7, A-6	0	0	67-83	53-83	50-83	43-74	36-51	16-22
	20-60	Gravelly loam, gravelly clay loam, gravelly silt loam	SC, CL, GC	A-2, A-6	0	0-7	63-92	33-92	30-92	26-81	31-47	13-21
128: Sanyon-----	0-5	Very gravelly loam	GC, GC-GM	A-2, A-4	0	0-14	51-67	37-67	35-67	27-54	22-35	6-12
	5-17	Extremely gravelly loam	GC, GC-GM	A-2	0	16-55	20-63	8-63	8-63	6-51	21-31	6-12
	17-27	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
128: Staberg-----	0-10	Loam	CL, CL-ML	A-4	0	0-4	85-95	71-95	59-87	41-63	25-37	6-12
	10-23	Gravelly loam	SC, CL	A-6	0	0-4	75-83	62-83	54-75	39-56	29-39	12-15
	23-33	Very cobbly loam, extremely cobbly loam	SC, CL	A-6	0	28-49	72-98	45-98	38-92	28-70	31-45	12-19
	33-38	Cobbly sandy loam, very cobbly sandy loam	SC-SM, ML	A-4	0	32-51	66-100	25-100	18-83	9-45	17-28	2-10
	38-48	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Kabear-----	0-9	Very fine sandy loam	ML	A-4	0	0	100	89-100	82-100	46-62	20-34	1-9
	9-45	Fine sandy loam, sandy loam	ML, SC-SM	A-4	0	0	100	89-100	76-98	35-52	17-34	1-11
	45-60	Fine sandy loam, loamy fine sand	SM	A-2, A-4	0	0	100	89-100	78-95	36-48	0-26	NP-6
129: Smidale-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-9	Very channery silt loam	SC-SM, ML, GM	A-4, A-6	0	25-35	48-68	47-67	42-66	34-56	32-47	8-16
	9-26	Very channery silt loam, very channery loam	SC, SC-SM, CL, GC	A-4, A-6	0	24-34	49-69	48-68	42-68	35-57	32-47	10-18
	26-39	Very channery silt loam, very channery loam	SC, CL, GC	A-6, A-7	0	23-34	51-70	49-70	45-68	38-59	35-47	13-18
	39-46	Very channery silt loam, very channery clay loam	SC, CL, GC	A-2, A-7	0	25-35	47-67	46-66	44-66	37-57	36-47	16-21
	46-61	Very channery silt loam, very channery clay loam, extremely channery loam	SC, GC	A-2, A-6	0	25-35	48-67	47-67	45-67	39-58	36-43	17-21

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
130: Smidale-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-9	Very channery silt loam	SC-SM, ML, GM	A-4, A-6	0	25-35	48-68	47-67	42-66	34-56	32-47	8-16
	9-26	Very channery silt loam, very channery loam	SC, SC-SM, CL, GC	A-4, A-6	0	24-34	49-69	48-68	42-68	35-57	32-47	10-18
	26-39	Very channery silt loam, very channery loam	SC, CL, GC	A-6, A-7	0	23-34	51-70	49-70	45-68	38-59	35-47	13-18
	39-46	Very channery silt loam, very channery clay loam	SC, CL, GC	A-2, A-7	0	25-35	47-67	46-66	44-66	37-57	36-47	16-21
	46-61	Very channery silt loam, very channery clay loam, extremely channery loam	SC, GC	A-2, A-6	0	25-35	48-67	47-67	45-67	39-58	36-43	17-21
Staberg-----	0-10	Loam	CL, CL-ML	A-4	0	0-4	85-95	71-95	59-87	41-63	25-37	6-12
	10-23	Gravelly loam	SC, CL	A-6	0	0-4	75-83	62-83	54-75	39-56	29-39	12-15
	23-33	Very cobbly loam, extremely cobbly loam	SC, CL	A-6	0	28-49	72-98	45-98	38-92	28-70	31-45	12-19
	33-38	Cobbly sandy loam, very cobbly sandy loam	SC-SM, ML	A-4	0	32-51	66-100	25-100	18-83	9-45	17-28	2-10
	38-48	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
131: Sprollo-----	0-3	Gravelly silt loam	GC, CL-ML, GC-GM	A-4	0-7	0-7	60-87	36-87	32-82	26-67	24-34	7-11
	3-14	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	1-4	0-8	69-87	37-87	34-82	27-67	23-32	7-11
	14-39	Very cobbly silt loam	CL, CL-ML	A-4	7-16	31-44	79-97	48-97	43-94	34-77	21-30	6-11
	39-49	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Hondoho-----	0-3	Stony silt loam	CL, SC	A-6	9-68	0-10	50-92	16-92	15-89	12-75	33-43	12-17
	3-19	Gravelly silt loam, very gravelly silt loam	GC, GC-GM	A-4, A-6	0	0-12	48-76	21-76	19-75	16-63	28-43	10-17
	19-60	Very gravelly silt loam, very gravelly loam, very cobbly loam	GC	A-2, A-6	0	5-27	40-79	15-79	13-75	11-63	29-40	12-18
132: Sprollo-----	0-3	Gravelly silt loam	GC, CL-ML, GC-GM	A-4	0-7	0-7	60-87	36-87	32-82	26-67	24-34	7-11
	3-14	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	1-4	0-8	69-87	37-87	34-82	27-67	23-32	7-11
	14-39	Very cobbly silt loam	CL, CL-ML	A-4	7-16	31-44	79-97	48-97	43-94	34-77	21-30	6-11
	39-49	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Hymas-----	0-3	Very gravelly silt loam	CL, GC	A-4, A-2	0-7	5-29	45-90	26-90	24-86	19-69	25-33	6-10
	3-14	Very gravelly silt loam, very gravelly loam, very stony loam	SC, GC	A-1, A-2, A-4	0-6	5-29	49-91	11-91	9-88	7-72	22-33	6-12
	14-17	Extremely cobbly loam, very cobbly loam, very gravelly loam	SC, GC	A-4, A-1, A-2	0-29	10-40	37-100	11-100	9-92	6-66	21-31	6-12
	17-27	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
133: Sterling-----	0-8	Gravelly loam	SC, ML	A-4	0	0	72-100	40-100	33-93	23-68	25-39	6-13
	8-66	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0	48-74	16-74	13-70	9-51	21-39	6-15
134: Sterling-----	0-8	Gravelly loam	SC, ML	A-4	0	0	72-100	40-100	33-93	23-68	25-39	6-13
	8-66	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0	48-74	16-74	13-70	9-51	21-39	6-15
135: Sterling-----	0-8	Gravelly loam	SC, ML	A-4	0	0	72-100	40-100	33-93	23-68	25-39	6-13
	8-66	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0	48-74	16-74	13-70	9-51	21-39	6-15
136: Sterling-----	0-8	Gravelly loam	SC, ML	A-4	0	0	72-100	40-100	33-93	23-68	25-39	6-13
	8-66	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0	48-74	16-74	13-70	9-51	21-39	6-15
137: Sterling-----	0-8	Gravelly loam	SC, ML	A-4	0	0	72-100	40-100	33-93	23-68	25-39	6-13
	8-66	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0	48-74	16-74	13-70	9-51	21-39	6-15
Parleys-----	0-4	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	30-44	10-18
	4-13	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	27-42	10-18
	13-18	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-49	19-25
	18-35	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-47	19-25
	35-50	Silty clay loam	CL	A-7, A-6	0	0	95-100	89-100	85-100	81-99	37-46	19-25
	50-60	Silt loam	CL	A-6	0	0	94-100	89-100	84-100	78-97	25-37	10-18



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
138: Thatcher-----	0-8	Loam	CL	A-6, A-4	0	0	95-100	79-100	76-100	59-84	30-41	10-17
	8-29	Silty clay loam, clay loam	CL	A-7, A-6	0	0	95-100	89-100	86-100	82-99	38-47	19-24
	29-58	Silt loam, silty clay loam	CL	A-6	0	0	95-100	89-100	88-100	83-100	35-45	17-22
	58-60	Silt loam, fine sandy loam, loam	CL, CL-ML, SC-SM	A-6, A-4	0	0	95-100	89-100	83-100	77-99	23-37	7-17
Bearhollow-----	0-4	Gravelly loam	SC, GC-GM	A-2, A-4	0	0	70-83	49-83	42-76	30-56	25-33	8-12
	4-9	Gravelly loam	SC, GC-GM, GC	A-4	0	0	65-83	49-83	42-76	30-56	24-31	8-12
	9-22	Gravelly loam	SC, CL-ML, GC-GM, GC	A-4	0	0	65-83	49-83	41-76	30-56	20-28	6-10
	22-43	Gravelly loam	SC, CL-ML, GC-GM	A-2, A-4	0	0	70-83	49-83	41-76	30-56	20-28	6-10
	43-60	Gravelly loam	SC, CL-ML, GC-GM, GC	A-4	0	0	65-83	49-83	41-76	30-56	22-30	6-11
139: Toponce-----	0-3	Silt loam	ML	A-4, A-6	0	0	89-100	78-100	69-99	57-83	33-47	9-17
	3-14	Silt loam, silty clay loam	CL	A-7	0	0	89-100	78-100	71-100	62-90	35-49	13-21
	14-60	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0	90-100	79-100	60-100	58-98	46-72	25-44
Broadhead-----	0-7	Silt loam	CL	A-6, A-4	0	0-5	94-100	83-100	73-99	61-83	29-43	9-17
	7-10	Silty clay loam, silt loam	CL	A-7, A-6	0	0-5	94-100	83-100	78-100	69-93	37-49	17-25
	10-60	Silty clay loam, silty clay	CH, CL	A-7	0	0-5	95-100	84-100	80-100	76-100	46-64	25-36
140: Trenton-----	0-8	Silty clay loam	CL	A-7	0	0	100	100	96-100	85-90	43-51	21-25
	8-32	Silty clay loam	CL	A-7	0	0	100	100	96-100	85-90	43-51	21-25
	32-46	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	100	92-100	88-100	46-64	25-36
	46-60	Silty clay	CH, CL	A-7	0	0	100	100	92-100	87-100	46-62	25-36

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
140: Battle Creek----	0-8	Silty clay loam	CH, CL	A-7	0	0	100	100	94-100	90-98	45-58	22-28
	8-11	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	100	89-100	84-97	47-61	23-32
	11-19	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	19-40	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	40-60	Silty clay, silty clay loam	CH	A-7	0	0	100	100	89-100	85-100	43-63	25-40
141: Trenton, cool---	0-8	Silty clay loam	CL	A-7	0	0	100	100	96-100	85-90	43-51	21-25
	8-32	Silty clay loam	CL	A-7	0	0	100	100	96-100	85-90	43-51	21-25
	32-46	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	100	92-100	88-100	46-64	25-36
	46-60	Silty clay	CH, CL	A-7	0	0	100	100	92-100	87-100	46-62	25-36
Battle Creek, cool-----	0-8	Silty clay loam	CH, CL	A-7	0	0	100	100	94-100	90-98	45-58	22-28
	8-11	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	100	89-100	84-97	47-61	23-32
	11-19	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	19-40	Silty clay, clay	CH	A-7	0	0	100	100	89-100	86-100	50-70	29-44
	40-60	Silty clay, silty clay loam	CH	A-7	0	0	100	100	89-100	85-100	43-63	25-40
142: Trenton-----	0-8	Silty clay loam	CL	A-7	0	0	100	100	96-100	85-90	43-51	21-25
	8-32	Silty clay loam	CL	A-7	0	0	100	100	96-100	85-90	43-51	21-25
	32-46	Silty clay loam, silty clay	CH, CL	A-7	0	0	100	100	92-100	88-100	46-64	25-36
	46-60	Silty clay	CH, CL	A-7	0	0	100	100	92-100	87-100	46-62	25-36

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
142: Parleys-----	0-4	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	30-44	10-18
	4-13	Silt loam	CL	A-6	0	0	94-100	88-100	83-100	77-97	27-42	10-18
	13-18	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-49	19-25
	18-35	Silty clay loam	CL	A-6, A-7	0	0	95-100	89-100	85-100	81-99	38-47	19-25
	35-50	Silty clay loam	CL	A-7, A-6	0	0	95-100	89-100	85-100	81-99	37-46	19-25
	50-60	Silt loam	CL	A-6	0	0	94-100	89-100	84-100	78-97	25-37	10-18
143: Valmar-----	0-9	Very cobbly silt loam	GC, GC-GM, GM	A-6	0-7	27-31	63-86	42-86	37-83	30-68	27-39	8-13
	9-14	Very stony silt loam, very cobbly silt loam	CL, GC, GC-GM	A-6	0-7	27-32	70-95	53-95	48-94	41-81	32-42	13-19
	14-24	Extremely stony silt loam, extremely flaggy silt loam	SC, GC, GC-GM	A-6	64-89	3-24	49-100	18-100	16-98	14-85	32-40	13-19
	24-34	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Camelback-----	0-3	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	3-14	Very gravelly silt loam	GC-GM, GC	A-2, A-4	0	0	30-66	27-65	24-62	20-51	26-37	7-12
	14-22	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	34-42	15-18
	22-32	Very gravelly silty clay loam	GC	A-7	0	0	31-67	28-66	27-66	24-59	39-46	19-22
	32-50	Very gravelly silt loam	GC	A-2, A-6	0	0	30-66	27-65	25-63	21-54	32-40	13-18
	50-61	Very gravelly loam	SC, GC	A-2	0	0	38-66	36-65	30-61	21-45	24-35	9-16
Hades-----	0-5	Silt loam	CL	A-6	0	0	86-100	74-100	66-97	55-82	29-41	12-17
	5-60	Gravelly silty clay loam	CL, GC	A-7	0	0-14	69-82	56-82	53-82	46-75	36-45	18-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
144: Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Bergquist-----	0-5	Very gravelly loam	GM, GC-GM	A-2	0	0-12	45-60	33-60	27-56	19-41	20-35	3-12
	5-12	Very cobbly loam, very gravelly loam, very gravelly sandy loam	SC-SM, GM, SM, GC-GM	A-2, A-4	0	13-22	33-44	18-44	15-41	10-30	18-35	2-12
	12-54	Extremely gravelly sandy loam, extremely cobbly sandy loam	GW-GC, GP-GM	A-1, A-2	0	8-26	17-55	7-55	5-45	2-24	0-26	NP-7
	54-64	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Rock outcrop----	0-60	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
145: Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
Yeates Hollow---	0-8	Cobbly silt loam	CL	A-4, A-6	0	16-29	85-96	66-96	61-91	50-76	30-39	10-13
	8-16	Extremely cobbly loam	GC, SC	A-2, A-6	8-18	42-46	64-93	45-93	39-87	29-66	33-42	13-19
	16-19	Extremely cobbly clay loam, extremely stony clay loam	GC, SC	A-2, A-7	9-32	35-37	45-100	15-100	13-94	10-74	39-49	19-25
	19-29	Very cobbly clay, very cobbly clay loam	CH, CL	A-7	0-13	22-45	65-98	50-98	43-98	34-82	46-62	25-36
	29-60	Very gravelly clay loam, very cobbly clay, extremely stony clay	CH, CL, GC, SC	A-2, A-7	0	11-21	62-100	22-100	20-100	16-88	45-62	25-36

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
145: Northwater-----	0-12	Gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0-7	55-85	35-85	33-85	19-51	23-35	2-7
	12-28	Extremely gravelly loam	GM, GC-GM	A-2	9-31	0-42	31-92	11-92	9-84	6-60	25-37	6-11
	28-46	Extremely gravelly loam	GC	A-2	7-31	17-35	28-61	11-61	10-56	7-42	31-38	14-18
	46-56	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
146: Welby-----	0-12	Silt loam	CL, CL-ML	A-4	0	0	100	100	95-100	87-95	25-35	6-12
	12-40	Silt loam, loam	CL, CL-ML	A-4	0	0	100	100	95-100	87-95	21-35	6-12
	40-60	Fine sandy loam	SC-SM, CL-ML, ML	A-4	0	0	100	100	85-98	41-54	17-31	2-12
147: Welby-----	0-12	Silt loam	CL, CL-ML	A-4	0	0	100	100	95-100	87-95	25-35	6-12
	12-40	Silt loam, loam	CL, CL-ML	A-4	0	0	100	100	95-100	87-95	21-35	6-12
	40-60	Fine sandy loam	SC-SM, CL-ML, ML	A-4	0	0	100	100	85-98	41-54	17-31	2-12
148: Welby, wet-----	0-12	Silt loam	CL-ML	A-4	0	0	100	100	95-100	83-91	23-36	4-10
	12-40	Silt loam, loam, very fine sandy loam	CL, CL-ML	A-4	0	0	100	100	95-100	87-95	21-35	6-12
	40-60	Fine sandy loam, very fine sandy loam	CL-ML, SC-SM	A-4	0	0	100	100	87-97	41-51	16-28	2-10
149: Collinston-----	0-8	Silt loam	CL, ML	A-6	0	0	100	94-100	91-100	85-94	31-43	12-15
	8-12	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	88-100	83-100	31-47	12-21
	12-60	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	87-100	82-99	30-43	12-21

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
149: Wheelon-----	0-6	Silt loam	CL	A-6	0	0	100	94-100	90-100	85-99	31-45	12-19
	6-60	Silt loam, silty clay loam	CL	A-6	0	0	100	95-100	93-100	88-100	35-46	16-24
150: Wheelon-----	0-6	Silt loam	CL	A-6	0	0	100	94-100	90-100	85-99	31-45	12-19
	6-60	Silt loam, silty clay loam	CL	A-6	0	0	100	95-100	93-100	88-100	35-46	16-24
Collinston-----	0-8	Silt loam	CL, ML	A-6	0	0	100	94-100	91-100	85-94	31-43	12-15
	8-12	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	88-100	83-100	31-47	12-21
	12-60	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	87-100	82-99	30-43	12-21
151: Wheelon-----	0-6	Silt loam	CL	A-6	0	0	100	94-100	90-100	85-99	31-45	12-19
	6-60	Silt loam, silty clay loam	CL	A-6	0	0	100	95-100	93-100	88-100	35-46	16-24
Collinston-----	0-8	Silt loam	CL, ML	A-6	0	0	100	94-100	91-100	85-94	31-43	12-15
	8-12	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	88-100	83-100	31-47	12-21
	12-60	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	87-100	82-99	30-43	12-21
152: Windernot-----	0-6	Gravelly sandy loam	SC-SM, SM	A-1	0	0	71-83	46-83	33-69	16-38	20-35	2-10
	6-18	Gravelly sandy loam	SC-SM, SM	A-1, A-2	0	0	71-83	46-83	33-69	16-38	20-35	2-10
	18-23	Very gravelly sandy loam	SC-SM, GM	A-1, A-2	0	0	58-64	39-64	29-53	14-29	18-33	2-10
	23-60	Extremely gravelly sand, very gravelly loamy sand	GP, GP-GM	A-1	0	0	29-66	11-66	8-52	1-7	0-20	NP-2

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
152: Lewnot-----	0-10	Fine sandy loam	SC-SM, SM	A-4	0	0	100	100	87-97	41-51	17-28	2-10
	10-38	Stratified fine sandy loam to loam to silt loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	100	---	---	20-36	6-17
	38-60	Very gravelly loamy sand	SP-SM, GC-GM, GM, SC-SM, SM	A-1, A-2	0	0-5	56-100	11-100	9-80	3-30	0-19	NP-2
Stinkcreek-----	0-11	Silty clay loam	CL	A-7	0	0	100	88-100	84-100	80-99	43-55	18-25
	11-21	Silty clay loam, silt loam	CL	A-6, A-7	0	0	100	88-100	79-100	75-100	31-51	12-25
	21-40	Very gravelly loamy sand	GM, GP-GM	A-1	0	0	32-48	9-36	7-29	2-11	0-22	NP-2
	40-60	Extremely gravelly sand	GP	A-1	0	0	32-49	10-38	7-29	1-3	0-17	NP-1
153: Winn-----	0-13	Silt loam	ML	A-7	0	0	94-100	88-100	81-95	68-79	38-46	11-13
	13-60	Loam, silt loam, very fine sandy loam	CL	A-6	0	0	94-100	89-100	78-90	56-65	29-35	12-13
154: Winwell-----	0-10	Silty clay loam	CL	A-7	0	0	100	100	97-100	86-91	39-49	18-22
	10-22	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	50-64	27-36
	22-30	Silty clay	CH, CL	A-7	0	0	100	100	94-100	90-100	47-58	28-36
	30-51	Silty clay loam	CL	A-7, A-6	0	0	100	100	95-100	83-91	35-44	18-25
	51-60	Silt loam	CL	A-6	0	0	100	100	90-98	75-83	27-37	12-18
155: Winwell-----	0-10	Silty clay loam	CL	A-7	0	0	100	100	97-100	86-91	39-49	18-22
	10-22	Silty clay loam, silty clay	CH	A-7	0	0	100	100	93-100	89-100	50-64	27-36
	22-30	Silty clay	CH, CL	A-7	0	0	100	100	94-100	90-100	47-58	28-36
	30-51	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	83-91	35-44	18-25
	51-60	Silt loam	CL	A-6	0	0	100	100	90-98	75-83	27-37	12-18



Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
155: Collinston-----	0-8	Silt loam	CL, ML	A-6	0	0	100	94-100	91-100	85-94	31-43	12-15
	8-12	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	88-100	83-100	31-47	12-21
	12-60	Silt loam, silty clay loam	CL	A-6	0	0	100	94-100	87-100	82-99	30-43	12-21
156: Wormcreek-----	0-9	Gravelly clay loam	GC	A-7	0	5-8	65-80	40-80	38-80	32-69	41-53	19-25
	9-22	Very gravelly clay loam, very cobbly clay loam	GC	A-7, A-2, A-6	0	16-31	51-75	26-75	24-75	20-65	39-51	19-25
	22-48	Very cobbly loam, extremely cobbly loam	GC, GC-GM	A-2	0-6	42-48	46-79	15-79	14-79	11-63	25-31	9-12
	48-58	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Copenhagen-----	0-7	Very channery loam	GC	A-2	0	14-19	28-52	6-51	6-51	4-42	29-38	12-16
	7-13	Very gravelly loam, very channery loam, extremely channery loam	GC	A-2, A-6	0	11-21	31-61	7-61	7-61	5-50	28-38	12-16
	13-23	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
157: Wormcreek-----	0-9	Gravelly clay loam	GC	A-7	0	5-8	65-80	40-80	38-80	32-69	41-53	19-25
	9-22	Very gravelly clay loam, very cobbly clay loam	GC	A-7, A-2, A-6	0	16-31	51-75	26-75	24-75	20-65	39-51	19-25
	22-48	Very cobbly loam, extremely cobbly loam	GC, GC-GM	A-2	0-6	42-48	46-79	15-79	14-79	11-63	25-31	9-12
	48-58	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
157: Lonigan-----	0-8	Gravelly silt loam	GC-GM, GM, ML	A-4	0	0-9	61-72	37-72	34-72	30-67	18-33	2-12
	8-11	Very gravelly loam, very gravelly silt loam	GC, GC-GM	A-2, A-4	0	0-8	41-61	25-61	24-61	19-51	21-31	6-12
	11-24	Very gravelly silt loam, very gravelly loam, very flaggy loam	GC	A-1, A-2, A-4	0	0-26	51-82	24-82	22-82	20-80	21-34	6-15
	24-34	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
158: Wursten-----	0-5	Loam	CL, CL-ML	A-4	0	0	89-100	78-100	67-90	47-65	26-37	7-11
	5-17	Loam	CL, CL-ML	A-4	0	0	89-100	78-100	66-92	46-67	24-35	7-13
	17-31	Loam	CL, CL-ML	A-4	0	0	89-100	78-100	67-90	47-64	22-28	7-10
	31-60	Gravelly loam, loam, fine sandy loam	SC, CL-ML, GC-GM	A-4	0	0-4	67-91	43-91	36-82	25-59	20-28	6-10
Dirtyhead-----	0-6	Very gravelly loam	GC	A-2, A-4	0	0	52-61	34-61	29-56	20-40	22-35	6-12
	6-38	Very gravelly loam, very gravelly sandy loam	GC	A-1, A-2	0	0	41-52	27-52	20-43	13-28	21-31	6-12
	38-48	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
159: Xerocrepts-----	0-8	Silt loam	CL	A-6, A-2, A-4	0	0	76-100	37-100	32-99	27-84	26-39	9-17
	8-14	Silt loam, extremely cobbly loam, very gravelly silt loam	CL	A-2, A-4, A-6	0	0	76-100	37-100	31-100	25-86	20-39	6-19
	14-26	Silt loam, extremely cobbly loam, very gravelly clay loam	CL, SC	A-2, A-4, A-6	0	0	64-100	25-100	21-100	17-88	20-40	6-21
	26-60	Silt loam, extremely cobbly loam, very gravelly silt loam	CL	A-2, A-4, A-6	0	0	64-100	25-100	21-100	17-86	20-38	6-19
Wormcreek-----	0-9	Gravelly clay loam	GC	A-7	0	5-8	65-80	40-80	38-80	32-69	41-53	19-25
	9-22	Very gravelly clay loam, very cobbly clay loam	GC	A-7, A-2, A-6	0	16-31	51-75	26-75	24-75	20-65	39-51	19-25
	22-48	Very cobbly loam, extremely cobbly loam	GC, GC-GM	A-2	0-6	42-48	46-79	15-79	14-79	11-63	25-31	9-12
	48-58	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
Xerorthents-----	0-3	Gravelly loam	SC, GC	A-4, A-6	0	0-12	26-94	23-94	18-88	13-66	20-37	6-17
	3-11	Extremely channery loam	SC, GC	A-2	0	27-45	7-65	4-64	3-60	2-45	20-37	6-17
	11-21	Weathered bedrock	---	---	---	---	---	---	---	---	---	---
160: Xerorthents-----	0-3	Gravelly loam	SC, GC	A-4, A-6	0	0-12	26-94	23-94	18-88	13-66	20-37	6-17
	3-11	Extremely channery loam	SC, GC	A-2	0	27-45	7-65	4-64	3-60	2-45	20-37	6-17
	11-21	Weathered bedrock	---	---	---	---	---	---	---	---	---	---

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
161: Yeates Hollow---	0-8	Cobbly silt loam	CL	A-4, A-6	0	16-29	85-96	66-96	61-91	50-76	30-39	10-13
	8-16	Extremely cobbly loam	GC, SC	A-2, A-6	8-18	42-46	64-93	45-93	39-87	29-66	33-42	13-19
	16-19	Extremely cobbly clay loam, extremely stony clay loam	GC, SC	A-2, A-7	9-32	35-37	45-100	15-100	13-94	10-74	39-49	19-25
	19-29	Very cobbly clay, very cobbly clay loam	CH, CL	A-7	0-13	22-45	65-98	50-98	43-98	34-82	46-62	25-36
	29-60	Very gravelly clay loam, very cobbly clay, extremely stony clay	CH, CL, GC, SC	A-2, A-7	0	11-21	62-100	22-100	20-100	16-88	45-62	25-36
162: Yeates Hollow---	0-8	Cobbly silt loam	CL	A-4, A-6	0	16-29	85-96	66-96	61-91	50-76	30-39	10-13
	8-16	Extremely cobbly loam	GC, SC	A-2, A-6	8-18	42-46	64-93	45-93	39-87	29-66	33-42	13-19
	16-19	Extremely cobbly clay loam, extremely stony clay loam	GC, SC	A-2, A-7	9-32	35-37	45-100	15-100	13-94	10-74	39-49	19-25
	19-29	Very cobbly clay, very cobbly clay loam	CH, CL	A-7	0-13	22-45	65-98	50-98	43-98	34-82	46-62	25-36
	29-60	Very gravelly clay loam, very cobbly clay, extremely stony clay	CH, CL, GC, SC	A-2, A-7	0	11-21	62-100	22-100	20-100	16-88	45-62	25-36

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
162: Manila-----	0-7	Silt loam	CL	A-6	0	0	100	88-100	79-99	67-85	33-47	12-19
	7-33	Silty clay loam, silty clay	CH, CL	A-7	0-8	0-8	100	88-100	82-100	78-100	47-68	23-36
	33-50	Cobbly clay loam	CL	A-6, A-7	0-7	0-15	90-96	76-96	65-94	50-75	39-55	19-28
	50-60	Gravelly loam, silty clay loam, clay loam	CL, SC	A-6	0-7	5-9	85-94	69-94	56-93	41-72	30-49	12-25
Softback-----	0-1	Slightly decomposed plant material	PT	A-8	0	0	---	---	---	---	---	---
	1-4	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	0	0	74-88	52-88	47-85	38-69	26-37	7-12
	4-10	Gravelly silt loam	SC, CL-ML, GC-GM	A-4	0	0	74-88	52-88	47-85	38-69	26-37	7-12
	10-24	Very cobbly silt loam	GC, GC-GM	A-4, A-6	0-19	10-32	52-88	32-88	28-87	23-74	26-41	9-17
	24-30	Very gravelly silt loam	GC	A-2, A-6	0-7	10-27	50-74	26-74	24-72	21-62	30-39	13-19
	30-39	Extremely gravelly clay loam, very cobbly clay loam	GC	A-2, A-7	0-18	9-22	42-76	18-76	16-72	12-57	37-47	19-25
	39-63	Extremely gravelly silty clay loam, extremely cobbly silty clay loam	GC	A-2	0-18	9-22	42-76	18-76	17-76	15-69	37-47	19-25

Table 20.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
163: Yeates Hollow---	0-8	Cobbly silt loam	CL	A-4, A-6	0	16-29	85-96	66-96	61-91	50-76	30-39	10-13
	8-16	Extremely cobbly loam	GC, SC	A-2, A-6	8-18	42-46	64-93	45-93	39-87	29-66	33-42	13-19
	16-19	Extremely cobbly clay loam, extremely stony clay loam	GC, SC	A-2, A-7	9-32	35-37	45-100	15-100	13-94	10-74	39-49	19-25
	19-29	Very cobbly clay, very cobbly clay loam	CH, CL	A-7	0-13	22-45	65-98	50-98	43-98	34-82	46-62	25-36
	29-60	Very gravelly clay loam, very cobbly clay, extremely stony clay	CH, CL, GC, SC	A-2, A-7	0	11-21	62-100	22-100	20-100	16-88	45-62	25-36
Vitale-----	0-1	Extremely stony loam	GC, GC-GM, GM	A-2	18-42	10-22	38-93	29-91	24-82	17-60	26-37	7-12
	1-15	Very cobbly loam, extremely cobbly loam, extremely stony loam	SC, GC	A-2, A-6	4-32	30-44	46-77	16-77	14-72	10-55	31-45	12-19
	15-26	Extremely cobbly clay loam, extremely stony clay loam, extremely stony loam	SC, GC	A-2, A-7	9-35	26-38	45-100	17-100	15-96	11-77	36-47	17-25
	26-36	Unweathered bedrock	---	---	---	---	---	---	---	---	---	---
164: Water.												

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
1: Airport-----	0-4	27-35	1.20-1.30	0.06-0.2	0.16-0.18	3.0-5.9	1.0-3.0	.43	.43	5	4L	86
	4-16	27-35	1.20-1.30	0.06-0.2	0.16-0.18	3.0-5.9	0.5-2.0	.49	.49			
	16-60	27-35	1.20-1.30	0.06-0.2	0.16-0.18	3.0-5.9	0.5-2.0	.49	.49			
2: Ant Flat-----	0-8	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	8-24	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.37	.37			
	24-42	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.32	.32			
	42-60	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
3: Ant Flat-----	0-8	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	8-24	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.37	.37			
	24-42	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.32	.32			
	42-60	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
4: Ant Flat-----	0-8	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	8-24	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.37	.37			
	24-42	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.32	.32			
	42-60	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
5: Ant Flat-----	0-8	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	8-24	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.37	.37			
	24-42	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.32	.32			
	42-60	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
Oxford-----	0-5	40-45	1.35-1.65	0.06-0.2	0.11-0.17	6.0-8.9	1.0-2.0	.32	.32	5	4	86
	5-26	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	26-63	40-65	1.25-1.60	0.0015-0.06	0.11-0.18	6.0-8.9	0.5-1.0	.37	.37			
6: Ant Flat-----	0-8	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	8-24	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.37	.37			
	24-42	35-55	1.35-1.45	0.06-0.2	0.15-0.20	6.0-8.9	1.0-2.0	.32	.32			
	42-60	27-35	1.40-1.50	0.06-0.2	0.19-0.21	3.0-5.9	0.5-1.0	.37	.37			
Oxford-----	0-5	40-45	1.35-1.65	0.06-0.2	0.11-0.17	6.0-8.9	1.0-2.0	.32	.32	5	4	86
	5-26	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	26-63	40-65	1.25-1.60	0.0015-0.06	0.11-0.18	6.0-8.9	0.5-1.0	.37	.37			
7: Arbone-----	0-8	13-18	1.30-1.50	0.6-2	0.16-0.18	0.0-2.9	1.0-3.0	.28	.32	5	5	56
	8-21	13-18	1.35-1.55	0.6-2	0.16-0.18	0.0-2.9	1.0-3.0	.37	.43			
	21-60	8-18	1.25-1.35	2-6	0.13-0.15	0.0-2.9	0.0-1.0	.32	.43			
8: Banida-----	0-6	32-39	1.40-1.50	0.06-0.2	0.14-0.18	3.0-5.9	1.0-2.0	.32	.32	5	4	86
	6-22	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	1.0-2.0	.37	.37			
	22-35	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	35-64	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
9: Banida-----	0-6	32-39	1.40-1.50	0.06-0.2	0.14-0.18	3.0-5.9	1.0-2.0	.32	.32	5	4	86
	6-22	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	1.0-2.0	.37	.37			
	22-35	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	35-64	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
10: Battle Creek---	0-8	32-40	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	4	86
	8-11	32-45	1.20-1.40	0.06-0.6	0.14-0.21	6.0-8.9	2.0-3.0	.32	.32			
	11-19	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	19-40	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	40-60	35-55	1.30-1.50	0.0000-0.06	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
11: Battle Creek---	0-8	32-40	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	4	86
	8-11	32-45	1.20-1.40	0.06-0.6	0.14-0.21	6.0-8.9	2.0-3.0	.32	.32			
	11-19	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	19-40	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	40-60	35-55	1.30-1.50	0.0000-0.06	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
12: Battle Creek---	0-8	32-40	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	4	86
	8-11	32-45	1.20-1.40	0.06-0.6	0.14-0.21	6.0-8.9	2.0-3.0	.32	.32			
	11-19	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	19-40	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	40-60	35-55	1.30-1.50	0.0000-0.06	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
13: Bear Lake-----	0-11	28-34	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	3.0-7.0	.37	.37	5	8	0
	11-20	28-34	1.20-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	20-26	15-34	1.30-1.45	0.2-2	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	26-60	15-34	1.45-1.75	2-20	0.04-0.16	0.0-2.9	0.0-0.5	.24	.43			
Chesbrook-----	0-2	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	4L	86
	2-20	27-35	1.20-1.40	0.6-2	0.19-0.21	3.0-5.9	3.0-5.0	.32	.37			
	20-48	35-40	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-4.0	.43	.49			
	48-62	20-32	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.55	.55			
Picabo-----	0-4	14-18	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	2.0-5.0	.43	.43	5	4L	86
	4-16	10-18	1.25-1.50	0.6-2	0.19-0.21	0.0-2.9	1.0-4.0	.49	.49			
	16-45	10-18	1.40-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-1.0	.55	.55			
	45-51	10-18	1.40-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.64	.64			
	51-65	10-15	1.30-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.64	.64			
14: Bear Lake-----	0-11	28-34	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	3.0-7.0	.37	.37	5	8	0
	11-20	28-34	1.20-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	20-26	15-34	1.30-1.45	0.2-2	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	26-60	15-34	1.45-1.75	2-20	0.04-0.16	0.0-2.9	0.0-0.5	.24	.43			
Downata-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	8	0
	1-12	12-24	1.20-1.55	0.6-2	0.18-0.21	0.0-2.9	3.0-6.0	.32	.32			
	12-59	28-34	1.20-1.55	0.2-0.6	0.17-0.20	3.0-5.9	1.0-3.0	.43	.43			
	59-63	18-27	1.20-1.40	0.6-2	0.17-0.20	0.0-2.9	0.5-2.0	.43	.43			
15: Bear Lake-----	0-11	28-34	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	3.0-7.0	.37	.37	5	8	0
	11-20	28-34	1.20-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	20-26	15-34	1.30-1.45	0.2-2	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	26-60	15-34	1.45-1.75	2-20	0.04-0.16	0.0-2.9	0.0-0.5	.24	.43			



# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
15:												
Downata-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	8	0
	1-12	12-24	1.20-1.55	0.6-2	0.18-0.21	0.0-2.9	3.0-6.0	.32	.32			
	12-59	28-34	1.20-1.55	0.2-0.6	0.17-0.20	3.0-5.9	1.0-3.0	.43	.43			
	59-63	18-27	1.20-1.40	0.6-2	0.17-0.20	0.0-2.9	0.5-2.0	.43	.43			
Thatcherflats--	0-4	11-18	1.10-1.20	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.55	.55	5	4L	86
	4-16	28-43	1.40-1.50	0.0015-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.49	.49			
	16-61	25-35	1.40-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.0-0.5	.49	.49			
16:												
Bear Lake-----	0-11	28-34	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	3.0-7.0	.37	.37	5	8	0
	11-20	28-34	1.20-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	20-26	15-34	1.30-1.45	0.2-2	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	26-60	15-34	1.45-1.75	2-20	0.04-0.16	0.0-2.9	0.0-0.5	.24	.43			
Lago-----	0-9	18-26	1.15-1.25	0.6-2	0.18-0.19	0.0-2.9	3.0-4.0	.37	.37	5	8	0
	9-16	18-26	1.20-1.30	0.6-2	0.18-0.19	0.0-2.9	1.0-3.0	.37	.37			
	16-45	22-35	1.35-1.45	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
	45-60	10-26	1.35-1.60	0.6-6	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			
17:												
Bearhollow-----	0-4	13-18	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	1.0-2.0	.24	.49	5	5	56
	4-9	13-18	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	0.5-1.0	.24	.49			
	9-22	10-16	1.20-1.40	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.32	.49			
	22-43	10-16	1.20-1.40	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.32	.49			
	43-60	10-16	1.20-1.40	0.6-2	0.10-0.15	3.0-5.9	0.0-0.5	.32	.49			
Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0000-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			
Iphil-----	0-8	7-18	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43	5	4L	86
	8-15	10-18	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.49	.49			
	15-60	12-18	1.20-1.30	0.6-2	0.18-0.21	0.0-2.9	0.5-1.0	.49	.49			
18:												
Bergquist-----	0-5	7-18	1.20-1.40	2-6	0.06-0.10	0.0-2.9	1.0-3.0	.15	.37	3	8	0
	5-12	5-18	1.20-1.40	2-6	0.07-0.09	0.0-2.9	1.0-3.0	.15	.37			
	12-54	3-12	1.30-1.50	2-20	0.04-0.08	0.0-2.9	0.0-1.0	.05	.28			
	54-64	---	---	---	---	---	---	---	---			
Rubble land----	0-60	---	---	---	---	---	---	---	---	---	---	---
19:												
Bergquist-----	0-5	7-18	1.20-1.40	2-6	0.06-0.10	0.0-2.9	1.0-3.0	.15	.37	3	8	0
	5-12	5-18	1.20-1.40	2-6	0.07-0.09	0.0-2.9	1.0-3.0	.15	.37			
	12-54	3-12	1.30-1.50	2-20	0.04-0.08	0.0-2.9	0.0-1.0	.05	.28			
	54-64	---	---	---	---	---	---	---	---			
Softback-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	6	48
	1-4	12-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.24	.37			
	4-10	12-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.24	.37			
	10-24	14-25	1.20-1.40	0.6-2	0.08-0.14	0.0-2.9	1.0-3.0	.15	.43			
	24-30	20-27	1.20-1.40	0.6-2	0.08-0.14	0.0-2.9	0.5-1.0	.15	.49			
	30-39	27-35	1.25-1.45	0.2-0.6	0.08-0.14	3.0-5.9	0.0-1.0	.10	.32			
	39-63	27-35	1.25-1.45	0.2-0.6	0.04-0.07	3.0-5.9	0.0-1.0	.05	.43			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
20:												
Bergquist-----	0-5	7-18	1.20-1.40	2-6	0.06-0.10	0.0-2.9	1.0-3.0	.15	.37	3	8	0
	5-12	5-18	1.20-1.40	2-6	0.07-0.09	0.0-2.9	1.0-3.0	.15	.37			
	12-54	3-12	1.30-1.50	2-20	0.04-0.08	0.0-2.9	0.0-1.0	.05	.28			
	54-64	---	---	---	---	---	---	---	---			
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	7	38
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			
21:												
Bothwell-----	0-6	16-22	1.20-1.35	0.6-2	0.19-0.21	3.0-5.9	3.0-4.0	.37	.37	5	5	56
	6-25	22-35	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	25-45	28-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	45-60	18-35	1.30-1.50	0.6-2	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
22:												
Bothwell-----	0-6	16-22	1.20-1.35	0.6-2	0.19-0.21	3.0-5.9	3.0-4.0	.37	.37	5	5	56
	6-25	22-35	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	25-45	28-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	45-60	18-35	1.30-1.50	0.6-2	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
23:												
Bothwell-----	0-6	16-22	1.20-1.35	0.6-2	0.19-0.21	3.0-5.9	3.0-4.0	.37	.37	5	5	56
	6-25	22-35	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	25-45	28-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	45-60	18-35	1.30-1.50	0.6-2	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Justesen-----	0-6	12-20	1.15-1.25	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.43	.43	5	5	56
	6-37	24-34	1.30-1.40	0.2-0.6	0.15-0.18	3.0-5.9	1.0-3.0	.37	.43			
	37-60	20-27	1.30-1.40	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
24:												
Bothwell-----	0-6	16-22	1.20-1.35	0.6-2	0.19-0.21	3.0-5.9	3.0-4.0	.37	.37	5	5	56
	6-25	22-35	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	25-45	28-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	45-60	18-35	1.30-1.50	0.6-2	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
Thatcher-----	0-8	16-25	1.35-1.45	0.6-2	0.17-0.18	0.0-2.9	2.0-3.0	.28	.28	5	6	48
	8-21	28-35	1.35-1.45	0.2-0.6	0.15-0.18	0.0-2.9	1.0-2.0	.49	.49			
	21-60	12-25	1.35-1.50	0.6-2	0.11-0.17	0.0-2.9	0.5-1.0	.49	.49			
25:												
Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0000-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			
Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	6	48
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
26:												
Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0000-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
26: Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	6	48
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
27: Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0000-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			
Niter-----	0-8	30-40	1.15-1.25	0.2-0.6	0.17-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	8-19	35-50	1.20-1.30	0.06-0.2	0.16-0.18	9.0-25.0	0.5-1.0	.28	.32			
	19-60	35-60	1.25-1.40	0.0000-0.06	0.16-0.18	9.0-25.0	0.1-0.5	.32	.32			
28: Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0000-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			
Niter-----	0-8	30-40	1.15-1.25	0.2-0.6	0.17-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	8-19	35-50	1.20-1.30	0.06-0.2	0.16-0.18	9.0-25.0	0.5-1.0	.28	.32			
	19-60	35-60	1.25-1.40	0.0000-0.06	0.16-0.18	9.0-25.0	0.1-0.5	.32	.32			
29: Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0000-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			
Niter-----	0-8	30-40	1.15-1.25	0.2-0.6	0.17-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	8-19	35-50	1.20-1.30	0.06-0.2	0.16-0.18	9.0-25.0	0.5-1.0	.28	.32			
	19-60	35-60	1.25-1.40	0.0000-0.06	0.16-0.18	9.0-25.0	0.1-0.5	.32	.32			
30: Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Yago-----	0-10	27-35	1.20-1.40	0.2-0.6	0.09-0.12	3.0-5.9	2.0-4.0	.15	.37	3	8	0
	10-45	27-35	1.25-1.50	0.06-0.2	0.08-0.11	6.0-8.9	0.5-1.0	.17	.43			
	45-60	27-35	1.20-1.40	0.2-0.6	0.09-0.12	3.0-5.9	0.0-1.0	.17	.49			
31: Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			
Yago-----	0-10	27-35	1.20-1.40	0.2-0.6	0.09-0.12	3.0-5.9	2.0-4.0	.15	.37	3	8	0
	10-45	27-35	1.25-1.50	0.06-0.2	0.08-0.11	6.0-8.9	0.5-1.0	.17	.43			
	45-60	27-35	1.20-1.40	0.2-0.6	0.09-0.12	3.0-5.9	0.0-1.0	.17	.49			
32: Camelback-----	0-3	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43	5	7	38
	3-14	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43			
	14-22	22-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	22-32	27-31	1.25-1.45	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	32-50	20-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	0.5-1.0	.20	.49			
	50-61	14-24	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	0.0-0.5	.17	.43			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
32: Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	5	56
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
33: Camelback-----	0-3	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43	5	5	56
	3-14	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43			
	14-22	22-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	22-32	27-31	1.25-1.45	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	32-50	20-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	0.5-1.0	.20	.49			
	50-61	14-24	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	0.0-0.5	.17	.43			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Valmar-----	0-9	13-20	1.20-1.40	0.6-2	0.10-0.15	0.0-2.9	2.0-4.0	.24	.43	2	8	0
	9-14	20-27	1.25-1.50	0.6-2	0.10-0.15	3.0-5.9	0.5-2.0	.20	.43			
	14-24	20-27	1.25-1.50	0.6-2	0.07-0.12	3.0-5.9	0.5-1.0	.17	.49			
	24-34	---	---	---	---	---	---	---	---			
34: Cedarhill-----	0-8	10-16	1.30-1.40	0.6-2	0.10-0.12	0.0-2.9	1.0-3.0	.15	.43	5	7	38
	8-17	10-17	1.30-1.40	0.6-2	0.10-0.13	0.0-2.9	1.0-2.0	.17	.43			
	17-60	10-17	1.30-1.40	2-6	0.03-0.05	0.0-2.9	0.5-1.0	.15	.49			
35: Cedarhill-----	0-8	10-16	1.30-1.40	0.6-2	0.10-0.12	0.0-2.9	1.0-3.0	.15	.43	5	8	0
	8-17	10-17	1.30-1.40	0.6-2	0.10-0.13	0.0-2.9	1.0-2.0	.17	.43			
	17-60	10-17	1.30-1.40	2-6	0.03-0.05	0.0-2.9	0.5-1.0	.15	.49			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Ricrest-----	0-6	14-25	1.25-1.50	0.6-2	0.14-0.17	0.0-2.9	2.0-5.0	.28	.32	5	6	48
	6-20	24-32	1.30-1.55	0.6-2	0.17-0.18	3.0-5.9	1.0-4.0	.24	.32			
	20-60	20-30	1.40-1.70	0.6-2	0.15-0.17	3.0-5.9	0.0-3.0	.24	.49			
36: Cedarhill-----	0-8	10-16	1.30-1.40	0.6-2	0.10-0.12	0.0-2.9	1.0-3.0	.15	.43	5	8	0
	8-17	10-17	1.30-1.40	0.6-2	0.10-0.13	0.0-2.9	1.0-2.0	.17	.43			
	17-60	10-17	1.30-1.40	2-6	0.03-0.05	0.0-2.9	0.5-1.0	.15	.49			
Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	6	48
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
Ridgecrest-----	0-14	8-18	1.25-1.55	0.6-2	0.08-0.10	0.0-2.9	2.0-4.0	.24	.43	2	8	0
	14-27	8-18	1.35-1.60	0.6-2	0.05-0.08	0.0-2.9	0.5-1.0	.20	.49			
	27-37	---	---	---	---	---	---	---	---			
37: Chesbrook-----	0-2	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	4L	86
	2-20	27-35	1.20-1.40	0.6-2	0.19-0.21	3.0-5.9	3.0-5.0	.32	.37			
	20-48	35-40	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-4.0	.43	.49			
	48-62	20-32	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.55	.55			
Bear Lake-----	0-11	28-34	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	3.0-7.0	.37	.37	5	8	0
	11-20	28-34	1.20-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	20-26	15-34	1.30-1.45	0.2-2	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	26-60	15-34	1.45-1.75	2-20	0.04-0.16	0.0-2.9	0.0-0.5	.24	.43			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
38:												
Cloudless-----	0-6	12-22	1.20-1.30	0.6-2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	5	56
	6-15	16-27	1.20-1.30	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.37	.37			
	15-21	27-32	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.32	.37			
	21-60	27-34	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	1.0-2.0	.20	.37			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
39:												
Cloudless-----	0-6	12-22	1.20-1.30	0.6-2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	5	56
	6-15	16-27	1.20-1.30	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.37	.37			
	15-21	27-32	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.32	.37			
	21-60	27-34	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	1.0-2.0	.20	.37			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Howcan-----	0-8	8-15	1.30-1.40	2-6	0.14-0.18	0.0-2.9	2.0-4.0	.10	.28	5	7	38
	8-25	10-26	1.35-1.45	0.6-2	0.10-0.12	3.0-5.9	2.0-4.0	.10	.28			
	25-36	10-26	1.35-1.45	0.6-2	0.10-0.12	3.0-5.9	2.0-4.0	.10	.28			
	36-60	10-21	1.35-1.45	0.6-2	0.08-0.10	0.0-2.9	0.0-1.0	.10	.37			
40:												
Copenhagen----	0-7	18-24	0.80-1.00	0.6-2	0.06-0.08	0.0-2.9	1.0-2.0	.10	.37	1	5	56
	7-13	18-24	1.20-1.40	0.6-2	0.10-0.13	0.0-2.9	0.5-2.0	.10	.37			
	13-23	---	---	---	---	---	---	---	---			
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	3	86
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
41:												
Delish-----	0-3	6-15	1.25-1.35	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	5	8	0
	3-7	8-15	1.25-1.35	0.6-6	0.14-0.20	0.0-2.9	1.0-2.0	.43	.43			
	7-61	15-25	1.35-1.40	0.6-2	0.16-0.21	0.0-2.9	0.0-0.5	.49	.49			
Cachecan-----	0-5	12-18	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.49	.49	5	5	56
	5-20	5-20	1.20-1.40	0.6-6	0.13-0.20	0.0-2.9	0.5-2.0	.43	.49			
	20-37	25-32	1.30-1.45	0.2-2	0.19-0.21	0.0-2.9	0.5-1.0	.43	.43			
	37-61	32-40	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
Stinkcreek----	0-11	27-35	1.20-1.40	0.2-0.6	0.17-0.20	3.0-5.9	3.0-5.0	.32	.32	3	8	0
	11-21	18-35	1.20-1.40	0.2-2	0.17-0.20	3.0-5.9	1.0-3.0	.37	.43			
	21-40	1-5	1.40-1.60	6-20	0.03-0.04	0.0-2.9	0.5-2.0	.10	.28			
	40-60	1-3	1.50-1.70	20-20	0.01-0.02	0.0-2.9	0.0-0.5	.02	.20			
42:												
Downata-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	8	0
	1-12	12-24	1.20-1.55	0.6-2	0.18-0.21	0.0-2.9	3.0-6.0	.32	.32			
	12-59	28-34	1.20-1.55	0.2-0.6	0.17-0.20	3.0-5.9	1.0-3.0	.43	.43			
	59-63	18-27	1.20-1.40	0.6-2	0.17-0.20	0.0-2.9	0.5-2.0	.43	.43			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
43:												
Dranburn-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	6	48
	1-17	18-24	1.20-1.40	0.6-2	0.18-0.21	0.0-2.9	3.0-5.0	.37	.37			
	17-22	24-32	1.20-1.40	0.2-2	0.17-0.21	3.0-5.9	2.0-4.0	.32	.37			
	22-48	28-35	1.20-1.40	0.2-0.6	0.12-0.15	3.0-5.9	1.0-2.0	.28	.43			
	48-61	28-35	1.20-1.40	0.2-0.6	0.12-0.15	3.0-5.9	0.5-1.0	.32	.43			
Robin-----	0-2	16-20	1.20-1.40	0.6-2	0.18-0.21	0.0-2.9	3.0-6.0	.37	.37	5	5	56
	2-23	20-24	1.20-1.40	0.6-2	0.18-0.21	3.0-5.9	2.0-4.0	.37	.43			
	23-27	20-24	1.20-1.40	0.6-2	0.18-0.21	3.0-5.9	1.0-3.0	.43	.49			
	27-60	25-35	1.25-1.45	0.2-2	0.18-0.21	3.0-5.9	0.0-1.0	.43	.49			
44:												
Enochville-----	0-12	15-25	1.20-1.35	0.6-2	0.19-0.21	0.0-2.9	4.0-6.0	.32	.32	5	5	56
	12-43	20-35	1.25-1.50	0.2-0.6	0.14-0.20	3.0-5.9	1.0-4.0	.37	.37			
	43-60	13-18	1.40-1.65	2-6	0.03-0.07	0.0-2.9	0.0-0.5	.15	.37			
45:												
Foxol-----	0-3	18-24	1.20-1.40	0.6-2	0.07-0.11	0.0-2.9	2.0-4.0	.10	.32	1	8	0
	3-9	18-24	1.20-1.40	0.6-2	0.07-0.12	0.0-2.9	2.0-4.0	.10	.32			
	9-17	18-27	1.20-1.40	0.6-2	0.03-0.07	0.0-2.9	1.0-2.0	.05	.37			
	17-27	---	---	---	---	---	---	---	---			
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	7	38
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			
46:												
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Camelback-----	0-3	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43	5	5	56
	3-14	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43			
	14-22	22-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	22-32	27-31	1.25-1.45	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	32-50	20-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	0.5-1.0	.20	.49			
	50-61	14-24	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	0.0-0.5	.17	.43			
Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	8	0
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
47:												
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Lanoak-----	0-21	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	21-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
Camelback-----	0-3	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43	5	5	56
	3-14	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43			
	14-22	22-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	22-32	27-31	1.25-1.45	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	32-50	20-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	0.5-1.0	.20	.49			
	50-61	14-24	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	0.0-0.5	.17	.43			
48:												
Haploxerolls---	0-6	5-25	1.25-1.55	0.6-6	0.02-0.10	0.0-2.9	2.0-5.0	.20	.43	5	6	48
	6-17	5-25	1.25-1.60	0.6-20	0.02-0.10	0.0-2.9	1.0-3.0	.28	.43			
	17-60	1-27	1.30-1.65	0.6-20	0.01-0.09	0.0-2.9	0.0-2.0	.20	.43			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
48: Xerorthents----	0-3	10-25	1.10-1.40	0.2-6	0.09-0.16	0.0-2.9	0.0-1.0	.20	.37	3	8	0
	3-11	10-25	1.10-1.40	0.2-6	0.05-0.12	0.0-2.9	0.0-1.0	.15	.37			
	11-21	---	---	---	---	---	---	---	---			
49: Hendricks-----	0-5	20-25	1.15-1.25	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.43	.43	5	6	48
	5-15	20-25	1.15-1.25	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.43	.43			
	15-66	27-35	1.25-1.35	0.2-0.6	0.16-0.18	3.0-5.9	1.0-2.0	.37	.37			
50: Holmes-----	0-4	17-22	1.20-1.40	0.6-2	0.13-0.16	0.0-2.9	2.0-4.0	.24	.43	3	6	48
	4-20	18-26	1.20-1.40	0.6-2	0.08-0.13	3.0-5.9	0.5-2.0	.15	.37			
	20-61	1-6	1.90-2.25	6-20	0.03-0.05	0.0-2.9	0.0-0.5	.05	.15			
51: Hondee-----	0-6	12-17	1.25-1.35	0.6-2	0.11-0.14	0.0-2.9	2.0-4.0	.20	.37	3	6	48
	6-16	8-18	1.20-1.25	0.6-2	0.14-0.16	0.0-2.9	1.0-3.0	.20	.32			
	16-19	8-18	1.20-1.25	0.6-2	0.12-0.14	0.0-2.9	0.5-1.0	.15	.32			
	19-39	5-14	1.50-1.60	2-6	0.05-0.09	0.0-2.9	0.0-1.0	.05	.20			
	39-60	2-6	1.55-1.65	6-20	0.03-0.05	0.0-2.9	0.0-1.0	.02	.05			
52: Hondee-----	0-6	12-17	1.25-1.35	0.6-2	0.11-0.14	0.0-2.9	2.0-4.0	.20	.37	3	6	48
	6-16	8-18	1.20-1.25	0.6-2	0.14-0.16	0.0-2.9	1.0-3.0	.20	.32			
	16-19	8-18	1.20-1.25	0.6-2	0.12-0.14	0.0-2.9	0.5-1.0	.15	.32			
	19-39	5-14	1.50-1.60	2-6	0.05-0.09	0.0-2.9	0.0-1.0	.05	.20			
	39-60	2-6	1.55-1.65	6-20	0.03-0.05	0.0-2.9	0.0-1.0	.02	.05			
53: Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	8	0
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
54: Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	6	48
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
Ricrest-----	0-6	14-25	1.25-1.50	0.6-2	0.14-0.17	0.0-2.9	2.0-5.0	.28	.32	5	6	48
	6-20	24-32	1.30-1.55	0.6-2	0.17-0.18	3.0-5.9	1.0-4.0	.24	.32			
	20-60	20-30	1.40-1.70	0.6-2	0.15-0.17	3.0-5.9	0.0-3.0	.24	.49			
55: Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	7	38
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
Spollow-----	0-3	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	1.0-3.0	.28	.49	2	5	56
	3-14	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	0.5-2.0	.28	.49			
	14-39	10-17	1.30-1.40	0.6-2	0.08-0.13	0.0-2.9	0.5-1.0	.17	.55			
	39-49	---	---	---	---	---	---	---	---			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
56:												
Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	7	38
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	7	38
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			
57:												
Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	6	48
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
58:												
Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	6	48
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
59:												
Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	6	48
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
Dirtyhead-----	0-6	10-18	1.40-1.50	0.6-2	0.07-0.10	0.0-2.9	1.0-3.0	.20	.37	3	6	48
	6-38	10-18	1.45-1.55	0.6-2	0.05-0.08	0.0-2.9	0.5-1.0	.15	.37			
	38-48	---	---	---	---	---	---	---	---			
60:												
Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	7	38
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
Harroun-----	0-7	7-15	1.30-1.40	0.6-2	0.12-0.14	0.0-2.9	1.0-3.0	.17	.37	1	6	48
	7-15	7-15	1.30-1.40	0.6-2	0.11-0.13	0.0-2.9	1.0-3.0	.17	.43			
	15-28	---	---	0.0015-0.06	0.00-0.00	---	---	---	---			
	28-60	5-15	1.50-1.60	2-6	0.03-0.05	0.0-2.9	0.5-1.0	.05	.24			
Lanoak-----	0-36	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	36-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
61:												
Huffman-----	0-7	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	6	48
	7-28	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	0.5-2.0	.32	.32			
	28-60	27-35	1.30-1.40	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
Wursten-----	0-5	12-17	1.20-1.40	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.32	.37	5	4L	86
	5-17	12-20	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	1.0-2.0	.37	.37			
	17-31	12-16	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	0.0-0.5	.37	.37			
	31-60	10-16	1.30-1.45	0.6-6	0.11-0.16	0.0-2.9	0.0-0.5	.28	.37			
62:												
Iphil-----	0-8	7-18	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43	5	4L	86
	8-15	10-18	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.49	.49			
	15-60	12-18	1.20-1.30	0.6-2	0.18-0.21	0.0-2.9	0.5-1.0	.49	.49			
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	5	56
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			



# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
63:												
Ireland-----	0-2	14-20	1.20-1.40	0.6-2	0.07-0.14	0.0-2.9	2.0-4.0	.15	.37	2	7	38
	2-7	14-20	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	1.0-3.0	.20	.37			
	7-14	14-20	1.30-1.50	0.6-2	0.07-0.13	0.0-2.9	0.5-1.0	.15	.43			
	14-23	10-22	1.30-1.50	0.6-2	0.02-0.07	0.0-2.9	0.5-1.0	.05	.37			
	23-33	---	---	---	---	---	---	---	---			
Polumar-----	0-6	14-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.20	.37	3	6	48
	6-11	14-18	1.20-1.40	0.6-2	0.11-0.17	0.0-2.9	2.0-4.0	.20	.37			
	11-18	14-18	1.30-1.50	0.6-2	0.07-0.14	0.0-2.9	1.0-3.0	.15	.37			
	18-22	14-18	1.30-1.50	0.6-2	0.07-0.14	0.0-2.9	1.0-3.0	.15	.37			
	22-46	12-18	1.30-1.50	0.6-2	0.05-0.07	0.0-2.9	0.5-1.0	.10	.43			
	46-56	---	---	---	---	---	---	---	---			
64:												
Kabear-----	0-9	4-14	1.25-1.40	0.6-2	0.13-0.16	0.0-2.9	2.0-4.0	.37	.43	5	5	56
	9-45	4-17	1.30-1.45	0.6-2	0.12-0.18	0.0-2.9	1.0-3.0	.37	.43			
	45-60	3-10	1.25-1.40	2-20	0.08-0.13	0.0-2.9	1.0-2.0	.24	.28			
Staberg-----	0-10	10-18	1.40-1.50	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.28	.37	3	5	56
	10-23	18-22	1.40-1.50	0.6-2	0.13-0.15	0.0-2.9	1.0-3.0	.17	.32			
	23-33	18-27	1.30-1.40	0.6-2	0.08-0.10	3.0-5.9	1.0-3.0	.15	.43			
	33-38	5-15	1.30-1.40	2-6	0.10-0.13	0.0-2.9	0.5-1.0	.05	.20			
	38-48	---	---	---	---	---	---	---	---			
Copenhagen----	0-7	18-24	0.80-1.00	0.6-2	0.06-0.08	0.0-2.9	1.0-2.0	.10	.37	1	5	56
	7-13	18-24	1.20-1.40	0.6-2	0.10-0.13	0.0-2.9	0.5-2.0	.10	.37			
	13-23	---	---	---	---	---	---	---	---			
65:												
Kabear-----	0-9	4-14	1.25-1.40	0.6-2	0.13-0.16	0.0-2.9	2.0-4.0	.37	.43	5	3	86
	9-45	4-17	1.30-1.45	0.6-2	0.12-0.18	0.0-2.9	1.0-3.0	.37	.43			
	45-60	3-10	1.25-1.40	2-20	0.08-0.13	0.0-2.9	1.0-2.0	.24	.28			
Staberg-----	0-10	10-18	1.40-1.50	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.28	.37	3	5	56
	10-23	18-22	1.40-1.50	0.6-2	0.13-0.15	0.0-2.9	1.0-3.0	.17	.32			
	23-33	18-27	1.30-1.40	0.6-2	0.08-0.10	3.0-5.9	1.0-3.0	.15	.43			
	33-38	5-15	1.30-1.40	2-6	0.10-0.13	0.0-2.9	0.5-1.0	.05	.20			
	38-48	---	---	---	---	---	---	---	---			
Copenhagen----	0-7	18-24	0.80-1.00	0.6-2	0.06-0.08	0.0-2.9	1.0-2.0	.10	.37	1	5	56
	7-13	18-24	1.20-1.40	0.6-2	0.10-0.13	0.0-2.9	0.5-2.0	.10	.37			
	13-23	---	---	---	---	---	---	---	---			
66:												
Kearns-----	0-16	16-24	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.32	.32	5	5	56
	16-38	18-26	1.20-1.30	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.32	.32			
	38-60	15-19	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	0.5-1.0	.43	.43			
67:												
Kearnsar-----	0-9	18-25	1.20-1.40	0.6-2	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	4L	86
	9-23	27-35	1.25-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.37	.37			
	23-27	27-35	1.25-1.45	0.2-0.6	0.18-0.21	3.0-5.9	0.5-1.0	.43	.43			
	27-45	24-32	1.25-1.45	0.2-2	0.18-0.21	3.0-5.9	0.5-1.0	.43	.43			
	45-60	24-32	1.25-1.45	0.2-2	0.18-0.21	3.0-5.9	0.0-0.5	.49	.49			
Battle Creek---	0-8	32-40	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	4	86
	8-11	32-45	1.20-1.40	0.06-0.6	0.14-0.21	6.0-8.9	2.0-3.0	.32	.32			
	11-19	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	19-40	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	40-60	35-55	1.30-1.50	0.0000-0.06	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
68: Kidman-----	0-12	7-15	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	2.0-4.0	.28	.28	5	3	86
	12-25	6-18	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	0.5-2.0	.49	.49			
	25-44	5-15	1.30-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-1.0	.55	.55			
	44-60	5-15	1.30-1.50	0.6-2	0.13-0.17	0.0-2.9	0.0-0.5	.49	.49			
69: Kidman-----	0-12	7-15	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	2.0-4.0	.28	.28	5	3	86
	12-25	6-18	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	0.5-2.0	.49	.49			
	25-44	5-15	1.30-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-1.0	.55	.55			
	44-60	5-15	1.30-1.50	0.6-2	0.13-0.17	0.0-2.9	0.0-0.5	.49	.49			
70: Kidman-----	0-12	7-15	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	2.0-4.0	.28	.28	5	3	86
	12-25	6-18	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	0.5-2.0	.49	.49			
	25-44	5-15	1.30-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-1.0	.55	.55			
	44-60	5-15	1.30-1.50	0.6-2	0.13-0.17	0.0-2.9	0.0-0.5	.49	.49			
71: Kidman, wet----	0-12	7-15	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	2.0-4.0	.28	.28	5	3	86
	12-25	6-18	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	0.5-2.0	.49	.49			
	25-44	5-15	1.30-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-1.0	.55	.55			
	44-60	5-15	1.30-1.50	0.6-2	0.13-0.17	0.0-2.9	0.0-0.5	.49	.49			
72: Kidman-----	0-12	7-15	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	2.0-4.0	.28	.28	5	3	86
	12-25	6-18	1.30-1.50	0.6-2	0.13-0.15	0.0-2.9	0.5-2.0	.49	.49			
	25-44	5-15	1.30-1.50	0.6-2	0.13-0.18	0.0-2.9	0.0-1.0	.55	.55			
	44-60	5-15	1.30-1.50	0.6-2	0.13-0.17	0.0-2.9	0.0-0.5	.49	.49			
Sterling-----	0-8	10-20	1.30-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.24	.37	5	6	48
	8-66	10-22	1.30-1.40	0.6-2	0.05-0.11	0.0-2.9	0.5-3.0	.10	.37			
73: Lando-----	0-5	18-26	1.30-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37	5	4L	86
	5-14	18-35	1.30-1.50	0.06-0.2	0.19-0.21	3.0-5.9	1.0-2.0	.43	.43			
	14-33	27-35	1.30-1.50	0.06-0.2	0.19-0.21	3.0-5.9	1.0-2.0	.43	.43			
	33-60	27-40	1.30-1.50	0.06-0.2	0.19-0.21	3.0-5.9	0.0-2.0	.49	.49			
74: Lanoak-----	0-36	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	36-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
75: Lanoak-----	0-36	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	36-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
76: Lanoak-----	0-36	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	36-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	7	38
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			
77: Lanoak-----	0-36	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	36-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
77:												
Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	7	38
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
78:												
Lanoak-----	0-21	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	21-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
79:												
Lanoak-----	0-36	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37	5	5	56
	36-50	10-20	1.12-1.35	0.6-2	0.19-0.21	0.0-2.9	3.0-5.0	.37	.37			
	50-60	18-27	1.25-1.55	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
Thatcher-----	0-8	16-25	1.35-1.45	0.6-2	0.17-0.18	0.0-2.9	2.0-3.0	.28	.28	5	6	48
	8-21	28-35	1.35-1.45	0.2-0.6	0.15-0.18	0.0-2.9	1.0-2.0	.49	.49			
	21-60	12-25	1.35-1.50	0.6-2	0.11-0.17	0.0-2.9	0.5-1.0	.49	.49			
80:												
Layton-----	0-13	5-12	1.45-1.55	6-20	0.09-0.11	0.0-2.9	2.0-4.0	.20	.20	5	2	134
	13-19	3-10	1.45-1.55	6-20	0.09-0.11	0.0-2.9	2.0-4.0	.20	.20			
	19-34	3-10	1.50-1.60	6-20	0.06-0.08	0.0-2.9	0.0-1.0	.32	.32			
	34-64	3-10	1.50-1.60	6-20	0.06-0.08	0.0-2.9	0.0-1.0	.32	.32			
81:												
Layton-----	0-13	5-12	1.45-1.55	6-20	0.09-0.11	0.0-2.9	2.0-4.0	.20	.20	5	3	86
	13-19	3-10	1.45-1.55	6-20	0.09-0.11	0.0-2.9	2.0-4.0	.20	.20			
	19-34	3-10	1.50-1.60	6-20	0.06-0.08	0.0-2.9	0.0-1.0	.32	.32			
	34-64	3-10	1.50-1.60	6-20	0.06-0.08	0.0-2.9	0.0-1.0	.32	.32			
82:												
Lizdale-----	0-6	14-20	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	2.0-4.0	.15	.37	5	6	48
	6-13	14-20	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	1.0-3.0	.17	.49			
	13-52	5-17	1.15-1.45	0.6-6	0.05-0.12	0.0-2.9	0.0-0.5	.15	.43			
	52-64	5-12	1.30-1.55	2-6	0.07-0.10	0.0-2.9	0.0-0.5	.17	.37			
	64-76	5-15	1.35-1.60	2-6	0.03-0.05	0.0-2.9	0.0-0.5	.05	.32			
83:												
Lizdale-----	0-6	14-20	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	2.0-4.0	.15	.37	5	6	48
	6-13	14-20	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	1.0-3.0	.17	.49			
	13-52	5-17	1.15-1.45	0.6-6	0.05-0.12	0.0-2.9	0.0-0.5	.15	.43			
	52-64	5-12	1.30-1.55	2-6	0.07-0.10	0.0-2.9	0.0-0.5	.17	.37			
	64-76	5-15	1.35-1.60	2-6	0.03-0.05	0.0-2.9	0.0-0.5	.05	.32			
Searla-----	0-9	12-20	1.40-1.50	0.6-2	0.13-0.16	0.0-2.9	2.0-4.0	.15	.28	5	6	48
	9-28	27-35	1.40-1.50	0.2-0.6	0.10-0.13	0.0-2.9	0.5-1.0	.10	.24			
	28-60	5-22	1.50-1.60	0.6-2	0.03-0.09	0.0-2.9	0.0-0.5	.05	.20			
84:												
Logan-----	0-2	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	8	0
	2-15	27-36	1.20-1.30	0.06-0.2	0.17-0.19	3.0-5.9	4.0-8.0	.37	.37			
	15-28	27-40	1.20-1.40	0.06-0.2	0.17-0.19	3.0-5.9	0.5-1.0	.37	.37			
	28-47	27-40	1.25-1.45	0.06-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.43	.43			
	47-62	27-40	1.30-1.50	0.06-0.2	0.17-0.19	3.0-5.9	0.0-0.5	.43	.43			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
85:												
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	3	86
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
Lizdale-----	0-6	14-20	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	2.0-4.0	.15	.37	5	6	48
	6-13	14-20	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	1.0-3.0	.17	.49			
	13-52	5-17	1.15-1.45	0.6-6	0.05-0.12	0.0-2.9	0.0-0.5	.15	.43			
	52-64	5-12	1.30-1.55	2-6	0.07-0.10	0.0-2.9	0.0-0.5	.17	.37			
	64-76	5-15	1.35-1.60	2-6	0.03-0.05	0.0-2.9	0.0-0.5	.05	.32			
86:												
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	5	56
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
Ricrest-----	0-6	14-25	1.25-1.50	0.6-2	0.14-0.17	0.0-2.9	2.0-5.0	.28	.32	5	6	48
	6-20	24-32	1.30-1.55	0.6-2	0.17-0.18	3.0-5.9	1.0-4.0	.24	.32			
	20-60	20-30	1.40-1.70	0.6-2	0.15-0.17	3.0-5.9	0.0-3.0	.24	.49			
87:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
88:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
89:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
90:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
Bancroft-----	0-7	15-20	1.50-1.55	0.6-2	0.19-0.21	0.0-2.9	2.0-3.0	.43	.43	5	5	56
	7-37	18-32	1.50-1.55	0.6-2	0.19-0.21	0.0-2.9	0.5-2.0	.43	.43			
	37-60	10-20	1.50-1.55	0.6-2	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55			
91:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
92:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			
93:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	4	86
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
94:												
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
Yeates Hollow--	0-8	16-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.17	.32	4	6	48
	8-16	20-27	1.20-1.40	0.6-2	0.05-0.07	3.0-5.9	1.0-2.0	.05	.32			
	16-19	28-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	1.0-2.0	.05	.28			
	19-29	35-50	1.15-1.40	0.06-0.6	0.07-0.14	6.0-8.9	0.5-1.0	.10	.28			
	29-60	35-50	1.10-1.40	0.06-0.6	0.09-0.13	6.0-8.9	0.0-1.0	.15	.32			
95:												
Maplecreek-----	0-14	10-18	1.25-1.45	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	5	3	86
	14-35	10-18	1.25-1.45	2-6	0.10-0.14	0.0-2.9	0.5-2.0	.32	.32			
	35-60	5-10	1.25-1.45	2-6	0.10-0.14	0.0-2.9	0.0-0.5	.37	.37			
96:												
Maplecreek-----	0-14	10-18	1.25-1.45	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	5	3	86
	14-35	10-18	1.25-1.45	2-6	0.10-0.14	0.0-2.9	0.5-2.0	.32	.32			
	35-60	5-10	1.25-1.45	2-6	0.10-0.14	0.0-2.9	0.0-0.5	.37	.37			
Layton-----	0-13	5-12	1.45-1.55	6-20	0.09-0.11	0.0-2.9	2.0-4.0	.20	.20	5	2	134
	13-19	3-10	1.45-1.55	6-20	0.09-0.11	0.0-2.9	2.0-4.0	.20	.20			
	19-34	3-10	1.50-1.60	6-20	0.06-0.08	0.0-2.9	0.0-1.0	.32	.32			
	34-64	3-10	1.50-1.60	6-20	0.06-0.08	0.0-2.9	0.0-1.0	.32	.32			
97:												
Merkley-----	0-5	12-22	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.43	.49	4	4L	86
	5-31	10-17	1.50-1.60	0.6-2	0.16-0.21	0.0-2.9	0.0-0.5	.49	.55			
	31-50	3-12	1.55-1.70	2-6	0.11-0.15	0.0-2.9	0.0-0.5	.37	.43			
	50-61	1-5	1.60-2.00	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.15	.28			
Lago-----	0-9	18-26	1.15-1.25	0.6-2	0.18-0.19	0.0-2.9	3.0-4.0	.37	.37	5	8	0
	9-16	18-26	1.20-1.30	0.6-2	0.18-0.19	0.0-2.9	1.0-3.0	.37	.37			
	16-45	22-35	1.35-1.45	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.37	.37			
	45-60	10-26	1.35-1.60	0.6-6	0.11-0.19	0.0-2.9	0.0-0.5	.37	.37			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
97:												
Bear Lake-----	0-11	28-34	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	3.0-7.0	.37	.37	5	8	0
	11-20	28-34	1.20-1.45	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	20-26	15-34	1.30-1.45	0.2-2	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	26-60	15-34	1.45-1.75	2-20	0.04-0.16	0.0-2.9	0.0-0.5	.24	.43			
98:												
Moonlight-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	5	56
	1-2	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---			
	2-26	12-18	1.30-1.60	0.6-2	0.19-0.21	0.0-2.9	4.0-6.0	.32	.37			
	26-62	12-18	1.30-1.60	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.37	.49			
Camelback-----	0-3	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43	5	5	56
	3-14	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43			
	14-22	22-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	22-32	27-31	1.25-1.45	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	32-50	20-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	0.5-1.0	.20	.49			
	50-61	14-24	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	0.0-0.5	.17	.43			
99:												
Niter-----	0-8	30-40	1.15-1.25	0.2-0.6	0.17-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	8-19	35-50	1.20-1.30	0.06-0.2	0.16-0.18	9.0-25.0	0.5-1.0	.28	.32			
	19-60	35-60	1.25-1.40	0.0015-0.06	0.16-0.18	9.0-25.0	0.1-0.5	.32	.32			
Brifox-----	0-7	40-50	1.15-1.30	0.06-0.2	0.18-0.20	6.0-8.9	1.0-3.0	.37	.37	5	4L	86
	7-18	35-50	1.20-1.40	0.06-0.2	0.16-0.20	9.0-25.0	1.0-2.0	.37	.37			
	18-60	38-60	1.20-1.40	0.0015-0.06	0.15-0.18	9.0-25.0	0.5-1.0	.32	.32			
100:												
Northwater-----	0-12	5-12	1.20-1.40	2-6	0.07-0.11	0.0-2.9	3.0-5.0	.10	.37	4	5	56
	12-28	10-17	1.20-1.40	0.6-2	0.07-0.11	0.0-2.9	2.0-4.0	.15	.37			
	28-46	21-26	1.20-1.40	0.6-2	0.04-0.07	0.0-2.9	0.5-1.0	.05	.37			
	46-56	---	---	---	---	---	---	---	---			
Foxol-----	0-3	18-24	1.20-1.40	0.6-2	0.07-0.11	0.0-2.9	2.0-4.0	.10	.32	1	8	0
	3-9	18-24	1.20-1.40	0.6-2	0.07-0.12	0.0-2.9	2.0-4.0	.10	.32			
	9-17	18-27	1.20-1.40	0.6-2	0.03-0.07	0.0-2.9	1.0-2.0	.05	.37			
	17-27	---	---	---	---	---	---	---	---			
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	8	0
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			
101:												
Northwater-----	0-12	5-12	1.20-1.40	2-6	0.07-0.11	0.0-2.9	3.0-5.0	.10	.37	5	6	48
	12-28	10-17	1.20-1.40	0.6-2	0.07-0.11	0.0-2.9	2.0-4.0	.15	.37			
	28-46	21-26	1.20-1.40	0.6-2	0.04-0.07	0.0-2.9	0.5-1.0	.05	.37			
	46-56	---	---	---	---	---	---	---	---			
Povey-----	0-17	10-18	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	17-38	10-20	1.30-1.45	0.6-2	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	38-60	8-18	1.30-1.45	0.6-2	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
102:												
Northwater-----	0-12	5-12	1.20-1.40	2-6	0.07-0.11	0.0-2.9	3.0-5.0	.10	.37	5	6	48
	12-28	10-17	1.20-1.40	0.6-2	0.07-0.11	0.0-2.9	2.0-4.0	.15	.37			
	28-46	21-26	1.20-1.40	0.6-2	0.04-0.07	0.0-2.9	0.5-1.0	.05	.37			
	46-56	---	---	---	---	---	---	---	---			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
102: Povey-----	0-17	10-18	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	3.0-5.0	.24	.43	5	7	38
	17-38	10-20	1.30-1.45	0.6-2	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	38-60	8-18	1.30-1.45	0.6-2	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
103: Nyman-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	3	6	48
	1-6	8-16	0.90-1.05	0.6-2	0.14-0.18	0.0-2.9	3.0-5.0	.28	.49			
	6-12	8-16	0.90-1.05	0.6-2	0.12-0.18	0.0-2.9	2.0-4.0	.28	.49			
	12-20	8-16	0.90-1.05	0.6-2	0.09-0.11	0.0-2.9	1.0-3.0	.17	.49			
	20-25	8-16	0.90-1.05	0.6-2	0.07-0.12	0.0-2.9	0.5-2.0	.17	.49			
	25-36	8-12	0.90-1.05	0.6-2	0.07-0.11	0.0-2.9	0.5-1.0	.17	.55			
	36-46	---	---	---	---	---	---	---	---			
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	5	56
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
Copenhagen----	0-7	18-24	0.80-1.00	0.6-2	0.06-0.08	0.0-2.9	1.0-2.0	.10	.37	1	5	56
	7-13	18-24	1.20-1.40	0.6-2	0.10-0.13	0.0-2.9	0.5-2.0	.10	.37			
	13-23	---	---	---	---	---	---	---	---			
104: Oxford-----	0-5	40-45	1.35-1.65	0.06-0.2	0.11-0.17	6.0-8.9	1.0-2.0	.32	.32	5	4	86
	5-26	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	26-63	40-65	1.25-1.60	0.0015-0.06	0.11-0.18	6.0-8.9	0.5-1.0	.37	.37			
Banida-----	0-6	32-39	1.40-1.50	0.06-0.2	0.14-0.18	3.0-5.9	1.0-2.0	.32	.32	5	4	86
	6-22	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	1.0-2.0	.37	.37			
	22-35	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	35-64	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
105: Oxford-----	0-5	40-45	1.35-1.65	0.06-0.2	0.11-0.17	6.0-8.9	1.0-2.0	.32	.32	5	4	86
	5-26	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	26-63	40-65	1.25-1.60	0.0015-0.06	0.11-0.18	6.0-8.9	0.5-1.0	.37	.37			
Banida-----	0-6	32-39	1.40-1.50	0.06-0.2	0.14-0.18	3.0-5.9	1.0-2.0	.32	.32	5	4	86
	6-22	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	1.0-2.0	.37	.37			
	22-35	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	35-64	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
106: Oxford-----	0-5	40-45	1.35-1.65	0.06-0.2	0.11-0.17	6.0-8.9	1.0-2.0	.32	.32	5	4	86
	5-26	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	26-63	40-65	1.25-1.60	0.0015-0.06	0.11-0.18	6.0-8.9	0.5-1.0	.37	.37			
Banida-----	0-6	32-39	1.40-1.50	0.06-0.2	0.14-0.18	3.0-5.9	1.0-2.0	.32	.32	5	4	86
	6-22	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	1.0-2.0	.37	.37			
	22-35	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	35-64	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
107: Oxford-----	0-5	40-45	1.35-1.65	0.06-0.2	0.11-0.17	6.0-8.9	1.0-2.0	.32	.32	5	4	86
	5-26	40-55	1.30-1.40	0.0015-0.06	0.14-0.16	6.0-8.9	0.0-0.0	.37	.37			
	26-63	40-65	1.25-1.60	0.0015-0.06	0.11-0.18	6.0-8.9	0.5-1.0	.37	.37			
Gullied land---	0-60	---	---	---	---	---	---	---	---	---	---	---

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
108: Parkay-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	3	6	48
	1-3	14-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	3.0-6.0	.20	.37			
	3-12	18-25	1.20-1.40	0.6-2	0.13-0.18	3.0-5.9	2.0-4.0	.20	.37			
	12-21	18-25	1.20-1.40	0.6-2	0.08-0.14	3.0-5.9	2.0-4.0	.15	.43			
	21-29	22-27	1.20-1.40	0.6-2	0.07-0.12	3.0-5.9	1.0-3.0	.15	.37			
	29-47	27-35	1.30-1.50	0.2-0.6	0.07-0.14	3.0-5.9	0.0-1.0	.15	.37			
	47-57	---	---	---	---	---	---	---	---			
Povey-----	0-17	10-18	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	17-38	10-20	1.30-1.45	0.6-2	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	38-60	8-18	1.30-1.45	0.6-2	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
109: Parleys-----	0-4	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	4-13	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43			
	13-18	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	18-35	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
	35-50	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	50-60	16-26	1.20-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55			
110: Parleys-----	0-4	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	4-13	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43			
	13-18	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	18-35	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
	35-50	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	50-60	16-26	1.20-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55			
111: Parleys, wet---	0-4	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	4-13	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43			
	13-18	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	18-35	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
	35-50	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	50-60	16-26	1.20-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55			
112: Pavohroo-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	5	56
	1-3	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---			
	3-6	8-17	1.20-1.40	0.6-2	0.16-0.19	0.0-2.9	4.0-8.0	.32	.37			
	6-29	18-25	1.20-1.40	0.6-2	0.16-0.19	0.0-2.9	1.0-3.0	.37	.43			
	29-63	18-25	1.20-1.40	0.6-2	0.12-0.16	0.0-2.9	0.5-1.0	.28	.43			
Sedgway-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	5	56
	1-2	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---			
	2-7	15-25	1.20-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.37	.43			
	7-23	15-25	1.20-1.40	0.6-2	0.09-0.11	0.0-2.9	0.5-2.0	.20	.43			
	23-62	27-34	1.20-1.40	0.2-0.6	0.08-0.10	3.0-5.9	0.0-1.0	.20	.37			
Toponce-----	0-3	15-25	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	4.0-6.0	.37	.43	5	6	48
	3-14	20-30	1.20-1.40	0.2-0.6	0.18-0.21	3.0-5.9	2.0-4.0	.37	.37			
	14-60	35-60	1.25-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.32	.32			
113: Picabo-----	0-4	14-18	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	2.0-5.0	.43	.43	5	4L	86
	4-16	10-18	1.25-1.50	0.6-2	0.19-0.21	0.0-2.9	1.0-4.0	.49	.49			
	16-45	10-18	1.40-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-1.0	.55	.55			
	45-51	10-18	1.40-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.64	.64			
	51-65	10-15	1.30-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.64	.64			



# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
113: Thatcherflats--	0-4	11-18	1.10-1.20	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.55	.55	5	4L	86
	4-16	28-43	1.40-1.50	0.0015-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.49	.49			
	16-61	25-35	1.40-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.0-0.5	.49	.49			
114: Pits, gravel---	0-60	---	---	---	---	---	---	---	---	---	---	---
115: Pollynnot-----	0-9	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.37	.43	5	7	38
	9-13	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.49	.49			
	13-15	18-27	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.5-1.0	.43	.49			
	15-26	28-35	1.25-1.45	0.2-0.6	0.16-0.19	3.0-5.9	0.0-0.5	.32	.43			
	26-44	18-25	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.0-0.5	.43	.49			
	44-61	5-12	1.40-1.60	6-20	0.08-0.11	0.0-2.9	0.0-0.5	.17	.20			
116: Pollynnot-----	0-9	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.37	.43	5	6	48
	9-13	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.49	.49			
	13-15	18-27	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.5-1.0	.43	.49			
	15-26	28-35	1.25-1.45	0.2-0.6	0.16-0.19	3.0-5.9	0.0-0.5	.32	.43			
	26-44	18-25	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.0-0.5	.43	.49			
	44-61	5-12	1.40-1.60	6-20	0.08-0.11	0.0-2.9	0.0-0.5	.17	.20			
117: Pollynnot-----	0-9	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.37	.43	5	6	48
	9-13	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.49	.49			
	13-15	18-27	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.5-1.0	.43	.49			
	15-26	28-35	1.25-1.45	0.2-0.6	0.16-0.19	3.0-5.9	0.0-0.5	.32	.43			
	26-44	18-25	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.0-0.5	.43	.49			
	44-61	5-12	1.40-1.60	6-20	0.08-0.11	0.0-2.9	0.0-0.5	.17	.20			
118: Pollynnot-----	0-9	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.37	.43	5	6	48
	9-13	14-23	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-2.0	.49	.49			
	13-15	18-27	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.5-1.0	.43	.49			
	15-26	28-35	1.25-1.45	0.2-0.6	0.16-0.19	3.0-5.9	0.0-0.5	.32	.43			
	26-44	18-25	1.20-1.40	0.6-2	0.17-0.21	0.0-2.9	0.0-0.5	.43	.49			
	44-61	5-12	1.40-1.60	6-20	0.08-0.11	0.0-2.9	0.0-0.5	.17	.20			
119: Polumar-----	0-6	14-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.20	.37	3	6	48
	6-11	14-18	1.20-1.40	0.6-2	0.11-0.17	0.0-2.9	2.0-4.0	.20	.37			
	11-18	14-18	1.30-1.50	0.6-2	0.07-0.14	0.0-2.9	1.0-3.0	.15	.37			
	18-22	14-18	1.30-1.50	0.6-2	0.07-0.14	0.0-2.9	1.0-3.0	.15	.37			
	22-46	12-18	1.30-1.50	0.6-2	0.05-0.07	0.0-2.9	0.5-1.0	.10	.43			
	46-56	---	---	---	---	---	---	---	---			
Ireland-----	0-2	14-20	1.20-1.40	0.6-2	0.07-0.14	0.0-2.9	2.0-4.0	.15	.37	2	7	38
	2-7	14-20	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	1.0-3.0	.20	.37			
	7-14	14-20	1.30-1.50	0.6-2	0.07-0.13	0.0-2.9	0.5-1.0	.15	.43			
	14-23	10-22	1.30-1.50	0.6-2	0.02-0.07	0.0-2.9	0.5-1.0	.05	.37			
	23-33	---	---	---	---	---	---	---	---			
120: Polumar-----	0-6	14-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.20	.37	3	6	48
	6-11	14-18	1.20-1.40	0.6-2	0.11-0.17	0.0-2.9	2.0-4.0	.20	.37			
	11-18	14-18	1.30-1.50	0.6-2	0.07-0.14	0.0-2.9	1.0-3.0	.15	.37			
	18-22	14-18	1.30-1.50	0.6-2	0.07-0.14	0.0-2.9	1.0-3.0	.15	.37			
	22-46	12-18	1.30-1.50	0.6-2	0.05-0.07	0.0-2.9	0.5-1.0	.10	.43			
	46-56	---	---	---	---	---	---	---	---			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
120:												
Sprowlow-----	0-3	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	1.0-3.0	.28	.49	2	5	56
	3-14	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	0.5-2.0	.28	.49			
	14-39	10-17	1.30-1.40	0.6-2	0.08-0.13	0.0-2.9	0.5-1.0	.17	.55			
	39-49	---	---	---	---	---	---	---	---			
Ireland-----	0-2	14-20	1.20-1.40	0.6-2	0.07-0.14	0.0-2.9	2.0-4.0	.15	.37	2	7	38
	2-7	14-20	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	1.0-3.0	.20	.37			
	7-14	14-20	1.30-1.50	0.6-2	0.07-0.13	0.0-2.9	0.5-1.0	.15	.43			
	14-23	10-22	1.30-1.50	0.6-2	0.02-0.07	0.0-2.9	0.5-1.0	.05	.37			
	23-33	---	---	---	---	---	---	---	---			
121:												
Povey-----	0-17	10-18	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	3.0-5.0	.24	.43	5	7	38
	17-38	10-20	1.30-1.45	0.6-2	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	38-60	8-18	1.30-1.45	0.6-2	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	7	38
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
122:												
Povey-----	0-17	10-18	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	17-38	10-20	1.30-1.45	0.6-2	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	38-60	8-18	1.30-1.45	0.6-2	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
Parkay-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	3	6	48
	1-3	14-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	3.0-6.0	.20	.37			
	3-12	18-25	1.20-1.40	0.6-2	0.13-0.18	3.0-5.9	2.0-4.0	.20	.37			
	12-21	18-25	1.20-1.40	0.6-2	0.08-0.14	3.0-5.9	2.0-4.0	.15	.43			
	21-29	22-27	1.20-1.40	0.6-2	0.07-0.12	3.0-5.9	1.0-3.0	.15	.37			
	29-47	27-35	1.30-1.50	0.2-0.6	0.07-0.14	3.0-5.9	0.0-1.0	.15	.37			
	47-57	---	---	---	---	---	---	---	---			
123:												
Preston-----	0-8	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.5-1.0	.24	.24	5	1	310
	8-15	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.24	.24			
	15-65	3-10	1.50-1.80	6-20	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
124:												
Preston-----	0-8	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.5-1.0	.24	.24	5	1	310
	8-15	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.24	.24			
	15-65	3-10	1.50-1.80	6-20	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
125:												
Preston-----	0-8	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	8-15	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.24	.24			
	15-65	3-10	1.50-1.80	6-20	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
126:												
Preston-----	0-8	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	8-15	1-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-1.0	.24	.24			
	15-65	3-10	1.50-1.80	6-20	0.05-0.11	0.0-2.9	0.0-0.5	.20	.20			
Xerorthents----	0-3	10-25	1.10-1.40	0.2-6	0.09-0.16	0.0-2.9	0.0-1.0	.20	.37	3	8	0
	3-11	10-25	1.10-1.40	0.2-6	0.05-0.12	0.0-2.9	0.0-1.0	.15	.37			
	11-21	---	---	---	---	---	---	---	---			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
127: Ricrest-----	0-6	14-25	1.25-1.50	0.6-2	0.14-0.17	0.0-2.9	2.0-5.0	.28	.32	5	6	48
	6-20	24-32	1.30-1.55	0.6-2	0.17-0.18	3.0-5.9	1.0-4.0	.24	.32			
	20-60	20-30	1.40-1.70	0.6-2	0.15-0.17	3.0-5.9	0.0-3.0	.24	.49			
128: Sanyon-----	0-5	10-18	1.20-1.30	0.6-2	0.08-0.12	0.0-2.9	1.0-3.0	.24	.37	2	5	56
	5-17	10-18	1.10-1.20	0.6-2	0.06-0.10	0.0-2.9	0.5-1.0	.17	.43			
	17-27	---	---	---	---	---	---	---	---			
Staberg-----	0-10	10-18	1.40-1.50	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.28	.37	3	6	48
	10-23	18-22	1.40-1.50	0.6-2	0.13-0.15	0.0-2.9	1.0-3.0	.17	.32			
	23-33	18-27	1.30-1.40	0.6-2	0.08-0.10	3.0-5.9	1.0-3.0	.15	.43			
	33-38	5-15	1.30-1.40	2-6	0.10-0.13	0.0-2.9	0.5-1.0	.05	.20			
	38-48	---	---	---	---	---	---	---	---			
Kabear-----	0-9	4-14	1.25-1.40	0.6-2	0.13-0.16	0.0-2.9	2.0-4.0	.37	.43	5	3	86
	9-45	4-17	1.30-1.45	0.6-2	0.12-0.18	0.0-2.9	1.0-3.0	.37	.43			
	45-60	3-10	1.25-1.40	2-20	0.08-0.13	0.0-2.9	1.0-2.0	.24	.28			
129: Smidale-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	4	7	38
	1-9	14-24	1.10-1.20	0.6-2	0.11-0.13	0.0-2.9	4.0-6.0	.10	.28			
	9-26	16-27	1.15-1.25	0.6-2	0.10-0.13	0.0-2.9	3.0-5.0	.15	.32			
	26-39	20-27	1.20-1.35	0.6-2	0.08-0.12	0.0-2.9	3.0-5.0	.15	.32			
	39-46	24-30	1.30-1.45	0.6-2	0.08-0.12	0.0-2.9	2.0-4.0	.15	.32			
	46-61	26-30	1.35-1.45	0.6-2	0.07-0.12	0.0-2.9	1.0-2.0	.10	.37			
130: Smidale-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	4	7	38
	1-9	14-24	1.10-1.20	0.6-2	0.11-0.13	0.0-2.9	4.0-6.0	.10	.28			
	9-26	16-27	1.15-1.25	0.6-2	0.10-0.13	0.0-2.9	3.0-5.0	.15	.32			
	26-39	20-27	1.20-1.35	0.6-2	0.08-0.12	0.0-2.9	3.0-5.0	.15	.32			
	39-46	24-30	1.30-1.45	0.6-2	0.08-0.12	0.0-2.9	2.0-4.0	.15	.32			
	46-61	26-30	1.35-1.45	0.6-2	0.07-0.12	0.0-2.9	1.0-2.0	.10	.37			
Staberg-----	0-10	10-18	1.40-1.50	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.28	.37	3	7	38
	10-23	18-22	1.40-1.50	0.6-2	0.13-0.15	0.0-2.9	1.0-3.0	.17	.32			
	23-33	18-27	1.30-1.40	0.6-2	0.08-0.10	3.0-5.9	1.0-3.0	.15	.43			
	33-38	5-15	1.30-1.40	2-6	0.10-0.13	0.0-2.9	0.5-1.0	.05	.20			
	38-48	---	---	---	---	---	---	---	---			
131: Sprollow-----	0-3	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	1.0-3.0	.28	.49	2	5	56
	3-14	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	0.5-2.0	.28	.49			
	14-39	10-17	1.30-1.40	0.6-2	0.08-0.13	0.0-2.9	0.5-1.0	.17	.55			
	39-49	---	---	---	---	---	---	---	---			
Hondoho-----	0-3	18-25	1.20-1.40	0.6-2	0.13-0.15	3.0-5.9	2.0-3.0	.17	.32	5	7	38
	3-19	15-25	1.20-1.30	0.6-2	0.13-0.15	3.0-5.9	1.0-3.0	.20	.37			
	19-60	18-26	1.20-1.40	0.6-2	0.08-0.11	3.0-5.9	0.0-1.0	.17	.32			
132: Sprollow-----	0-3	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	1.0-3.0	.28	.49	2	5	56
	3-14	12-17	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	0.5-2.0	.28	.49			
	14-39	10-17	1.30-1.40	0.6-2	0.08-0.13	0.0-2.9	0.5-1.0	.17	.55			
	39-49	---	---	---	---	---	---	---	---			
Hymas-----	0-3	10-15	1.25-1.35	0.6-2	0.13-0.16	0.0-2.9	2.0-3.0	.15	.43	1	8	0
	3-14	10-18	1.35-1.45	0.6-2	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43			
	14-17	10-18	1.35-1.45	0.6-2	0.07-0.11	0.0-2.9	0.5-1.0	.10	.43			
	17-27	---	---	---	---	---	---	---	---			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
133: Sterling-----	0-8	10-20	1.30-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.24	.37	5	6	48
	8-66	10-22	1.30-1.40	0.6-2	0.05-0.11	0.0-2.9	0.5-3.0	.10	.37			
134: Sterling-----	0-8	10-20	1.30-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.24	.37	5	6	48
	8-66	10-22	1.30-1.40	0.6-2	0.05-0.11	0.0-2.9	0.5-3.0	.10	.37			
135: Sterling-----	0-8	10-20	1.30-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.24	.37	5	5	56
	8-66	10-22	1.30-1.40	0.6-2	0.05-0.11	0.0-2.9	0.5-3.0	.10	.37			
136: Sterling-----	0-8	10-20	1.30-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.24	.37	5	6	48
	8-66	10-22	1.30-1.40	0.6-2	0.05-0.11	0.0-2.9	0.5-3.0	.10	.37			
137: Sterling-----	0-8	10-20	1.30-1.40	0.6-2	0.14-0.16	0.0-2.9	2.0-4.0	.24	.37	5	6	48
	8-66	10-22	1.30-1.40	0.6-2	0.05-0.11	0.0-2.9	0.5-3.0	.10	.37			
Parleys-----	0-4	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	4-13	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43			
	13-18	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	18-35	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
	35-50	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	50-60	16-26	1.20-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55			
138: Thatcher-----	0-8	16-25	1.35-1.45	0.6-2	0.17-0.18	0.0-2.9	2.0-3.0	.28	.28	5	6	48
	8-29	28-35	1.35-1.45	0.2-0.6	0.15-0.18	0.0-2.9	1.0-2.0	.49	.49			
	29-58	25-32	1.35-1.45	0.2-0.6	0.15-0.18	0.0-2.9	1.0-2.0	.49	.49			
	58-60	12-25	1.35-1.50	0.6-2	0.11-0.17	0.0-2.9	0.5-1.0	.49	.49			
Bearhollow----	0-4	13-18	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	1.0-2.0	.24	.49	5	5	56
	4-9	13-18	1.20-1.40	0.6-2	0.11-0.15	0.0-2.9	0.5-1.0	.24	.49			
	9-22	10-16	1.20-1.40	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.32	.49			
	22-43	10-16	1.20-1.40	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.32	.49			
	43-60	10-16	1.20-1.40	0.6-2	0.10-0.15	3.0-5.9	0.0-0.5	.32	.49			
139: Toponce-----	0-3	15-25	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	4.0-6.0	.37	.43	5	6	48
	3-14	20-30	1.20-1.40	0.2-0.6	0.18-0.21	3.0-5.9	2.0-4.0	.37	.37			
	14-60	35-60	1.25-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.32	.32			
Broadhead-----	0-7	15-25	1.20-1.40	0.6-2	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	7-10	25-35	1.25-1.45	0.2-0.6	0.18-0.20	3.0-5.9	1.0-2.0	.28	.28			
	10-60	35-50	1.30-1.50	0.06-0.2	0.16-0.18	6.0-8.9	0.5-2.0	.24	.32			
140: Trenton-----	0-8	30-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37	5	4L	86
	8-32	30-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37			
	32-46	35-50	1.40-1.50	0.06-0.2	0.17-0.20	6.0-8.9	0.5-2.0	.32	.32			
	46-60	35-50	1.40-1.50	0.06-0.2	0.15-0.17	6.0-8.9	0.5-1.0	.32	.32			
Battle Creek---	0-8	32-40	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	4	86
	8-11	32-45	1.20-1.40	0.06-0.6	0.14-0.21	6.0-8.9	2.0-3.0	.32	.32			
	11-19	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	19-40	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	40-60	35-55	1.30-1.50	0.0000-0.06	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
141:												
Trenton, cool--	0-8	30-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37	5	4L	86
	8-32	30-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37			
	32-46	35-50	1.40-1.50	0.06-0.2	0.17-0.20	6.0-8.9	0.5-2.0	.32	.32			
	46-60	35-50	1.40-1.50	0.06-0.2	0.15-0.17	6.0-8.9	0.5-1.0	.32	.32			
Battle Creek, cool-----	0-8	32-40	1.20-1.40	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	4	86
	8-11	32-45	1.20-1.40	0.06-0.6	0.14-0.21	6.0-8.9	2.0-3.0	.32	.32			
	11-19	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	19-40	40-60	1.30-1.50	0.0000-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.32	.32			
	40-60	35-55	1.30-1.50	0.0000-0.06	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
142:												
Trenton-----	0-8	30-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37	5	4L	86
	8-32	30-35	1.35-1.45	0.2-0.6	0.19-0.21	3.0-5.9	2.0-3.0	.37	.37			
	32-46	35-50	1.40-1.50	0.06-0.2	0.17-0.20	6.0-8.9	0.5-2.0	.32	.32			
	46-60	35-50	1.40-1.50	0.06-0.2	0.15-0.17	6.0-8.9	0.5-1.0	.32	.32			
Parleys-----	0-4	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.32	.32	5	6	48
	4-13	16-26	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	1.0-3.0	.43	.43			
	13-18	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-2.0	.43	.43			
	18-35	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
	35-50	27-35	1.30-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	50-60	16-26	1.20-1.50	0.6-2	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55			
143:												
Valmar-----	0-9	13-20	1.20-1.40	0.6-2	0.10-0.15	0.0-2.9	2.0-4.0	.24	.43	2	8	0
	9-14	20-27	1.25-1.50	0.6-2	0.10-0.15	3.0-5.9	0.5-2.0	.20	.43			
	14-24	20-27	1.25-1.50	0.6-2	0.07-0.12	3.0-5.9	0.5-1.0	.17	.49			
	24-34	---	---	---	---	---	---	---	---			
Camelback-----	0-3	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43	5	5	56
	3-14	12-18	1.20-1.40	0.6-2	0.10-0.14	0.0-2.9	2.0-4.0	.17	.43			
	14-22	22-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	22-32	27-31	1.25-1.45	0.6-2	0.10-0.14	3.0-5.9	1.0-2.0	.17	.43			
	32-50	20-26	1.20-1.40	0.6-2	0.10-0.14	3.0-5.9	0.5-1.0	.20	.49			
	50-61	14-24	1.20-1.40	0.6-2	0.09-0.12	0.0-2.9	0.0-0.5	.17	.43			
Hades-----	0-5	18-25	1.20-1.40	0.6-2	0.15-0.18	0.0-2.9	1.0-3.0	.32	.43	5	6	48
	5-60	27-35	1.30-1.40	0.2-0.6	0.16-0.18	0.0-2.9	0.5-1.0	.15	.32			
144:												
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	8	0
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			
Bergquist-----	0-5	7-18	1.20-1.40	2-6	0.06-0.10	0.0-2.9	1.0-3.0	.15	.37	3	8	0
	5-12	5-18	1.20-1.40	2-6	0.07-0.09	0.0-2.9	1.0-3.0	.15	.37			
	12-54	3-12	1.30-1.50	2-20	0.04-0.08	0.0-2.9	0.0-1.0	.05	.28			
	54-64	---	---	---	---	---	---	---	---			
Rock outcrop---	0-60	---	---	---	---	---	---	---	---	---	---	---
145:												
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	8	0
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
145:												
Yeates Hollow--	0-8	16-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.17	.32	4	7	38
	8-16	20-27	1.20-1.40	0.6-2	0.05-0.07	3.0-5.9	1.0-2.0	.05	.32			
	16-19	28-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	1.0-2.0	.05	.28			
	19-29	35-50	1.15-1.40	0.06-0.6	0.07-0.14	6.0-8.9	0.5-1.0	.10	.28			
	29-60	35-50	1.10-1.40	0.06-0.6	0.09-0.13	6.0-8.9	0.0-1.0	.15	.32			
Northwater-----	0-12	5-12	1.20-1.40	2-6	0.07-0.11	0.0-2.9	3.0-5.0	.10	.37	4	5	56
	12-28	10-17	1.20-1.40	0.6-2	0.07-0.11	0.0-2.9	2.0-4.0	.15	.37			
	28-46	21-26	1.20-1.40	0.6-2	0.04-0.07	0.0-2.9	0.5-1.0	.05	.37			
	46-56	---	---	---	---	---	---	---	---			
146:												
Welby-----	0-12	10-18	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	2.0-3.0	.43	.43	5	4L	86
	12-40	10-18	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	0.5-3.0	.43	.43			
	40-60	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	0.5-1.0	.37	.37			
147:												
Welby-----	0-12	10-18	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	2.0-3.0	.43	.43	5	4L	86
	12-40	10-18	1.20-1.30	0.6-2	0.19-0.21	0.0-2.9	0.5-3.0	.43	.43			
	40-60	5-18	1.30-1.40	2-6	0.13-0.15	0.0-2.9	0.5-1.0	.37	.37			
148:												
Welby, wet-----	0-12	8-16	1.20-1.40	0.6-2	0.19-0.21	0.0-2.9	2.0-4.0	.43	.43	5	4L	86
	12-40	10-18	1.20-1.40	0.6-2	0.16-0.20	0.0-2.9	0.5-3.0	.55	.55			
	40-60	5-15	1.30-1.50	2-6	0.13-0.17	0.0-2.9	0.0-1.0	.37	.43			
149:												
Collinston-----	0-8	18-22	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-4.0	.43	.43	5	4L	86
	8-12	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	12-60	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
Wheelon-----	0-6	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43	5	4L	86
	6-60	24-34	1.40-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
150:												
Wheelon-----	0-6	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43	5	4L	86
	6-60	24-34	1.40-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
Collinston-----	0-8	18-22	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-4.0	.43	.43	5	4L	86
	8-12	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	12-60	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
151:												
Wheelon-----	0-6	18-27	1.30-1.40	0.6-2	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43	5	4L	86
	6-60	24-34	1.40-1.50	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
Collinston-----	0-8	18-22	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-4.0	.43	.43	5	4L	86
	8-12	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	12-60	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
152:												
Windernot-----	0-6	5-15	1.20-1.40	2-6	0.07-0.11	0.0-2.9	2.0-4.0	.17	.32	3	5	56
	6-18	5-15	1.20-1.40	2-6	0.07-0.11	0.0-2.9	2.0-4.0	.17	.32			
	18-23	5-15	1.30-1.50	2-6	0.05-0.08	0.0-2.9	1.0-3.0	.15	.37			
	23-60	1-5	1.60-2.00	20-20	0.01-0.04	0.0-2.9	0.0-1.0	.05	.28			
Lewnot-----	0-10	5-15	1.25-1.45	2-6	0.13-0.15	0.0-2.9	0.5-1.0	.24	.24	3	3	86
	10-38	10-25	1.25-1.45	0.6-6	0.10-0.20	0.0-2.9	0.0-0.5	.32	.32			
	38-60	3-5	1.70-1.90	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.24			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
152: Stinkcreek-----	0-11	27-35	1.20-1.40	0.2-0.6	0.17-0.20	3.0-5.9	3.0-5.0	.32	.32	3	8	0
	11-21	18-35	1.20-1.40	0.2-2	0.17-0.20	3.0-5.9	1.0-3.0	.37	.43			
	21-40	1-5	1.40-1.60	6-20	0.03-0.04	0.0-2.9	0.5-2.0	.10	.28			
	40-60	1-3	1.50-1.70	20-20	0.01-0.02	0.0-2.9	0.0-0.5	.02	.20			
153: Winn-----	0-13	18-20	1.20-1.25	0.6-2	0.18-0.19	0.0-2.9	5.0-7.0	.32	.32	5	4L	86
	13-60	18-20	1.30-1.40	0.6-2	0.16-0.18	0.0-2.9	1.0-2.0	.43	.43			
154: Winwell-----	0-10	27-32	1.20-1.40	0.2-0.6	0.18-0.21	0.0-2.9	2.0-4.0	.37	.37	5	7	38
	10-22	38-50	1.30-1.50	0.06-0.6	0.14-0.20	6.0-8.9	1.0-2.0	.32	.32			
	22-30	40-50	1.30-1.50	0.06-0.2	0.14-0.17	0.0-2.9	0.5-1.0	.32	.32			
	30-51	27-35	1.20-1.40	0.2-0.6	0.18-0.21	0.0-2.9	0.0-0.5	.43	.43			
	51-60	18-26	1.20-1.40	0.6-2	0.18-0.21	0.0-2.9	0.0-0.5	.55	.55			
155: Winwell-----	0-10	27-32	1.20-1.40	0.2-0.6	0.18-0.21	0.0-2.9	2.0-4.0	.37	.37	5	7	38
	10-22	38-50	1.30-1.50	0.06-0.6	0.14-0.20	6.0-8.9	1.0-2.0	.32	.32			
	22-30	40-50	1.30-1.50	0.06-0.2	0.14-0.17	0.0-2.9	0.5-1.0	.32	.32			
	30-51	27-35	1.20-1.40	0.2-0.6	0.18-0.21	0.0-2.9	0.0-0.5	.43	.43			
	51-60	18-26	1.20-1.40	0.6-2	0.18-0.21	0.0-2.9	0.0-0.5	.55	.55			
Collinston-----	0-8	18-22	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-4.0	.43	.43	5	4L	86
	8-12	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.43	.43			
	12-60	18-30	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
156: Wormcreek-----	0-9	27-35	1.10-1.30	0.2-0.6	0.15-0.18	3.0-5.9	2.0-4.0	.10	.20	2	5	56
	9-22	27-35	1.00-1.20	0.2-2	0.10-0.14	3.0-5.9	1.0-3.0	.15	.37			
	22-48	14-18	1.00-1.10	0.6-2	0.05-0.10	0.0-2.9	0.5-1.0	.10	.49			
	48-58	---	---	---	---	---	---	---	---			
Copenhagen-----	0-7	18-24	0.80-1.00	0.6-2	0.06-0.08	0.0-2.9	1.0-2.0	.10	.37	1	5	56
	7-13	18-24	1.20-1.40	0.6-2	0.10-0.13	0.0-2.9	0.5-2.0	.10	.37			
	13-23	---	---	---	---	---	---	---	---			
157: Wormcreek-----	0-9	27-35	1.10-1.30	0.2-0.6	0.15-0.18	3.0-5.9	2.0-4.0	.10	.20	2	5	56
	9-22	27-35	1.00-1.20	0.2-2	0.10-0.14	3.0-5.9	1.0-3.0	.15	.37			
	22-48	14-18	1.00-1.10	0.6-2	0.05-0.10	0.0-2.9	0.5-1.0	.10	.49			
	48-58	---	---	---	---	---	---	---	---			
Lonigan-----	0-8	5-18	0.95-1.05	2-6	0.17-0.19	0.0-2.9	1.0-2.0	.24	.37	3	5	56
	8-11	10-18	1.00-1.10	2-6	0.14-0.16	0.0-2.9	0.5-1.0	.24	.37			
	11-24	10-22	1.30-1.40	2-6	0.08-0.10	0.0-2.9	0.5-1.0	.24	.37			
	24-34	---	---	---	---	---	---	---	---			
158: Wursten-----	0-5	12-17	1.20-1.40	0.6-2	0.16-0.18	0.0-2.9	2.0-4.0	.32	.37	5	4L	86
	5-17	12-20	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	1.0-2.0	.37	.37			
	17-31	12-16	1.20-1.40	0.6-2	0.14-0.18	0.0-2.9	0.0-0.5	.37	.37			
	31-60	10-16	1.30-1.45	0.6-6	0.11-0.16	0.0-2.9	0.0-0.5	.28	.37			
Dirtyhead-----	0-6	10-18	1.40-1.50	0.6-2	0.07-0.10	0.0-2.9	1.0-3.0	.20	.37	3	6	48
	6-38	10-18	1.45-1.55	0.6-2	0.05-0.08	0.0-2.9	0.5-1.0	.15	.37			
	38-48	---	---	---	---	---	---	---	---			

# Soil Survey of Franklin County Area, Idaho

Table 21.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
159:												
Xerochrepts----	0-8	14-25	1.10-1.40	0.6-6	0.12-0.21	0.0-2.9	1.0-2.0	.37	.37	5	4L	86
	8-14	10-27	1.10-1.40	0.6-2	0.04-0.21	0.0-2.9	0.0-1.0	.24	.43			
	14-26	10-30	1.10-1.40	0.2-2	0.04-0.21	0.0-2.9	0.0-0.5	.32	.49			
	26-60	10-27	1.10-1.40	0.6-2	0.04-0.21	0.0-2.9	0.0-0.5	.24	.49			
Wormcreek-----	0-9	27-35	1.10-1.30	0.2-0.6	0.15-0.18	3.0-5.9	2.0-4.0	.10	.20	2	5	56
	9-22	27-35	1.00-1.20	0.2-2	0.10-0.14	3.0-5.9	1.0-3.0	.15	.37			
	22-48	14-18	1.00-1.10	0.6-2	0.05-0.10	0.0-2.9	0.5-1.0	.10	.49			
	48-58	---	---	---	---	---	---	---	---			
Xerorthents----	0-3	10-25	1.10-1.40	0.2-6	0.09-0.16	0.0-2.9	0.0-1.0	.20	.37	3	8	0
	3-11	10-25	1.10-1.40	0.2-6	0.05-0.12	0.0-2.9	0.0-1.0	.15	.37			
	11-21	---	---	---	---	---	---	---	---			
160:												
Xerorthents----	0-3	10-25	1.10-1.40	0.2-6	0.09-0.16	0.0-2.9	0.0-1.0	.20	.37	3	8	0
	3-11	10-25	1.10-1.40	0.2-6	0.05-0.12	0.0-2.9	0.0-1.0	.15	.37			
	11-21	---	---	---	---	---	---	---	---			
161:												
Yeates Hollow--	0-8	16-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.17	.32	4	8	0
	8-16	20-27	1.20-1.40	0.6-2	0.05-0.07	3.0-5.9	1.0-2.0	.05	.32			
	16-19	28-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	1.0-2.0	.05	.28			
	19-29	35-50	1.15-1.40	0.06-0.6	0.07-0.14	6.0-8.9	0.5-1.0	.10	.28			
	29-60	35-50	1.10-1.40	0.06-0.6	0.09-0.13	6.0-8.9	0.0-1.0	.15	.32			
162:												
Yeates Hollow--	0-8	16-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.17	.32	4	6	48
	8-16	20-27	1.20-1.40	0.6-2	0.05-0.07	3.0-5.9	1.0-2.0	.05	.32			
	16-19	28-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	1.0-2.0	.05	.28			
	19-29	35-50	1.15-1.40	0.06-0.6	0.07-0.14	6.0-8.9	0.5-1.0	.10	.28			
	29-60	35-50	1.10-1.40	0.06-0.6	0.09-0.13	6.0-8.9	0.0-1.0	.15	.32			
Manila-----	0-7	18-27	1.20-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.37	.37	5	6	48
	7-33	32-50	1.35-1.45	0.06-0.2	0.16-0.20	6.0-8.9	2.0-4.0	.32	.32			
	33-50	27-40	1.35-1.45	0.2-0.6	0.16-0.18	3.0-5.9	1.0-3.0	.24	.24			
	50-60	18-35	1.25-1.35	0.6-2	0.14-0.15	3.0-5.9	0.5-2.0	.20	.32			
Softback-----	0-1	0-25	0.10-0.30	6-101	0.30-0.60	---	60-95	---	---	5	6	48
	1-4	12-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.24	.37			
	4-10	12-18	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.24	.37			
	10-24	14-25	1.20-1.40	0.6-2	0.08-0.14	0.0-2.9	1.0-3.0	.15	.43			
	24-30	20-27	1.20-1.40	0.6-2	0.08-0.14	0.0-2.9	0.5-1.0	.15	.49			
	30-39	27-35	1.25-1.45	0.2-0.6	0.08-0.14	3.0-5.9	0.0-1.0	.10	.32			
	39-63	27-35	1.25-1.45	0.2-0.6	0.04-0.07	3.0-5.9	0.0-1.0	.05	.43			
163:												
Yeates Hollow--	0-8	16-20	1.20-1.40	0.6-2	0.13-0.18	0.0-2.9	2.0-4.0	.17	.32	4	8	0
	8-16	20-27	1.20-1.40	0.6-2	0.05-0.07	3.0-5.9	1.0-2.0	.05	.32			
	16-19	28-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	1.0-2.0	.05	.28			
	19-29	35-50	1.15-1.40	0.06-0.6	0.07-0.14	6.0-8.9	0.5-1.0	.10	.28			
	29-60	35-50	1.10-1.40	0.06-0.6	0.09-0.13	6.0-8.9	0.0-1.0	.15	.32			
Vitale-----	0-1	12-18	1.20-1.40	0.6-2	0.05-0.07	0.0-2.9	2.0-4.0	.05	.37	2	8	0
	1-15	18-27	1.20-1.40	0.6-2	0.05-0.08	3.0-5.9	1.0-3.0	.05	.32			
	15-26	25-35	1.20-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.32			
	26-36	---	---	---	---	---	---	---	---			
164:												
Water.												



# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>In</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
1: Airport-----	0-4	10-30	---	7.4-8.4	5-25	0	4.0-32.0	5-15
	4-16	10-25	---	8.5-9.0	25-40	0	4.0-32.0	15-40
	16-60	10-25	---	8.5-9.0	25-40	0	4.0-32.0	15-40
2: Ant Flat-----	0-8	15-30	---	6.6-7.8	0	0	0.0-2.0	0
	8-24	15-40	---	6.6-7.8	0-10	0	0.0-2.0	0
	24-42	15-40	---	7.4-8.4	15-35	0	0.0-2.0	0
	42-60	13-23	---	7.4-9.0	15-25	0	0.0-2.0	0-5
3: Ant Flat-----	0-8	15-30	---	6.6-7.8	0	0	0.0-2.0	0
	8-24	15-40	---	6.6-7.8	0-10	0	0.0-2.0	0
	24-42	15-40	---	7.4-8.4	15-35	0	0.0-2.0	0
	42-60	13-23	---	7.4-9.0	15-25	0	0.0-2.0	0-5
4: Ant Flat-----	0-8	15-30	---	6.6-7.8	0	0	0.0-2.0	0
	8-24	15-40	---	6.6-7.8	0-10	0	0.0-2.0	0
	24-42	15-40	---	7.4-8.4	15-35	0	0.0-2.0	0
	42-60	13-23	---	7.4-9.0	15-25	0	0.0-2.0	0-5
5: Ant Flat-----	0-8	15-30	---	6.6-7.8	0	0	0.0-2.0	0
	8-24	15-40	---	6.6-7.8	0-10	0	0.0-2.0	0
	24-42	15-40	---	7.4-8.4	15-35	0	0.0-2.0	0
	42-60	13-23	---	7.4-9.0	15-25	0	0.0-2.0	0-5
Oxford-----	0-5	35-50	---	7.4-8.4	1-15	0	0	0
	5-26	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-63	30-45	---	7.4-8.4	1-15	1-10	2.0-4.0	0-5
6: Ant Flat-----	0-8	15-30	---	6.6-7.8	0	0	0.0-2.0	0
	8-24	15-40	---	6.6-7.8	0-10	0	0.0-2.0	0
	24-42	15-40	---	7.4-8.4	15-35	0	0.0-2.0	0
	42-60	13-23	---	7.4-9.0	15-25	0	0.0-2.0	0-5
Oxford-----	0-5	35-50	---	7.4-8.4	1-15	0	0	0
	5-26	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-63	30-45	---	7.4-8.4	1-15	1-10	2.0-4.0	0-5
7: Arbone-----	0-8	10-13	---	7.4-8.4	0	0	0	0
	8-21	10-13	---	7.4-8.4	0	0	0.0-2.0	0
	21-60	7.0-10	---	7.4-8.4	15-30	0	0.0-2.0	0
8: Banida-----	0-6	15-30	---	7.4-8.4	0	0	0.0-2.0	0
	6-22	20-35	---	7.4-8.4	0-15	0-5	0.0-2.0	0
	22-35	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	35-64	15-35	---	7.4-8.4	5-15	0	2.0-4.0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
9: Banida-----	0-6	15-30	---	7.4-8.4	0	0	0.0-2.0	0
	6-22	20-35	---	7.4-8.4	0-15	0-5	0.0-2.0	0
	22-35	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	35-64	15-35	---	7.4-8.4	5-15	0	2.0-4.0	0-5
10: Battle Creek-----	0-8	15-30	---	7.4-7.8	0-5	0	0.0-2.0	0-2
	8-11	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0-2
	11-19	15-40	---	7.9-8.4	0-5	0	0.0-2.0	0-2
	19-40	15-40	---	7.9-8.4	15-30	0	0.0-2.0	0-2
	40-60	15-35	---	7.9-9.0	15-30	0	0.0-2.0	2-8
11: Battle Creek-----	0-8	15-30	---	7.4-7.8	0-5	0	0.0-2.0	0-2
	8-11	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0-2
	11-19	15-40	---	7.9-8.4	0-5	0	0.0-2.0	0-2
	19-40	15-40	---	7.9-8.4	15-30	0	0.0-2.0	0-2
	40-60	15-35	---	7.9-9.0	15-30	0	0.0-2.0	2-8
12: Battle Creek-----	0-8	15-30	---	7.4-7.8	0-5	0	0.0-2.0	0-2
	8-11	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0-2
	11-19	15-40	---	7.9-8.4	0-5	0	0.0-2.0	0-2
	19-40	15-40	---	7.9-8.4	15-30	0	0.0-2.0	0-2
	40-60	15-35	---	7.9-9.0	15-30	0	0.0-2.0	2-8
13: Bear Lake-----	0-11	12-30	---	7.4-8.4	15-35	0	0.0-2.0	0-2
	11-20	15-25	---	7.9-8.4	15-40	0	0.0-2.0	0-2
	20-26	6.0-20	---	7.9-8.4	10-35	0	0.0-2.0	0-2
	26-60	0.0-1.0	---	7.4-8.4	0-15	0	0.0-2.0	0-2
Chesbrook-----	0-2	---	20-30	4.5-5.5	0	0	0	0
	2-20	13-25	---	7.9-9.0	25-40	0	0.0-2.0	0-3
	20-48	9.0-25	---	7.9-9.0	40-75	0	0.0-2.0	0-3
	48-62	7.0-20	---	7.9-9.0	25-40	0	0.0-2.0	0-3
Picabo-----	0-4	10-20	---	7.9-9.0	20-50	0	2.0-4.0	13-25
	4-16	6.0-20	---	7.9-9.0	25-55	0	2.0-4.0	13-25
	16-45	4.0-15	---	7.9-8.4	40-70	0	0.0-4.0	1-8
	45-51	4.0-10	---	7.9-8.4	20-40	0	0.0-4.0	0-8
	51-65	4.0-10	---	7.9-8.4	15-40	0	0.0-4.0	0-8
14: Bear Lake-----	0-11	12-30	---	7.4-8.4	15-35	0	0.0-2.0	0-2
	11-20	15-25	---	7.9-8.4	15-40	0	0.0-2.0	0-2
	20-26	6.0-20	---	7.9-8.4	10-35	0	0.0-2.0	0-2
	26-60	0.0-1.0	---	7.4-8.4	0-15	0	0.0-2.0	0-2
Downata-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-12	11-25	---	7.4-8.4	5-35	0	0.0-4.0	0-5
	12-59	15-25	---	7.4-8.4	15-40	0	0.0-4.0	0-5
	59-63	10-20	---	7.4-8.4	0-45	0	0.0-2.0	0-5
15: Bear Lake-----	0-11	12-30	---	7.4-8.4	15-35	0	0.0-2.0	0-2
	11-20	15-25	---	7.9-8.4	15-40	0	0.0-2.0	0-2
	20-26	6.0-20	---	7.9-8.4	10-35	0	0.0-2.0	0-2
	26-60	0.0-1.0	---	7.4-8.4	0-15	0	0.0-2.0	0-2

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
15:								
Downata-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-12	11-25	---	7.4-8.4	5-35	0	0.0-4.0	0-5
	12-59	15-25	---	7.4-8.4	15-40	0	0.0-4.0	0-5
	59-63	10-20	---	7.4-8.4	0-45	0	0.0-2.0	0-5
Thatcherflats-----	0-4	6.0-15	---	7.9-9.0	0-5	0	0.0-2.0	5-15
	4-16	15-35	---	8.5-9.0	0-5	0	2.0-4.0	20-30
	16-61	15-30	---	8.5-9.0	5-25	0-5	4.0-8.0	45-120
16:								
Bear Lake-----	0-11	12-30	---	7.4-8.4	15-35	0	0.0-2.0	0-2
	11-20	15-25	---	7.9-8.4	15-40	0	0.0-2.0	0-2
	20-26	6.0-20	---	7.9-8.4	10-35	0	0.0-2.0	0-2
	26-60	0.0-1.0	---	7.4-8.4	0-15	0	0.0-2.0	0-2
Lago-----	0-9	15-25	---	7.9-9.0	10-30	0	0	0-5
	9-16	15-25	---	7.9-9.0	15-40	0	0	0-5
	16-45	15-30	---	7.9-9.0	15-40	0	0	0-5
	45-60	4.0-15	---	7.9-9.0	5-40	0	0	0-5
17:								
Bearhollow-----	0-4	7.0-15	---	7.9-8.4	5-15	0	0	0-5
	4-9	6.0-15	---	7.9-8.4	5-15	0	0	0-5
	9-22	4.0-10	---	7.9-9.0	15-25	0	0	0-13
	22-43	4.0-10	---	7.9-9.0	15-25	0	0	0-13
	43-60	4.0-10	---	7.9-9.0	10-20	0	0	0-13
Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5
Iphil-----	0-8	7.0-15	---	7.4-9.0	5-15	0	0.0-2.0	0
	8-15	6.0-15	---	7.4-9.0	10-15	0	0.0-2.0	0-8
	15-60	6.0-15	---	7.4-9.0	15-35	0	0.0-2.0	5-15
18:								
Bergquist-----	0-5	4.0-15	---	6.6-7.8	0	0	0	0
	5-12	4.0-15	---	6.6-7.8	0	0	0	0
	12-54	1.0-9.0	---	6.6-7.8	0	0	0	0
	54-64	---	---	---	---	---	---	---
Rubble land-----	0-60	---	---	---	---	---	---	---
19:								
Bergquist-----	0-5	4.0-15	---	6.6-7.8	0	0	0	0
	5-12	4.0-15	---	6.6-7.8	0	0	0	0
	12-54	1.0-9.0	---	6.6-7.8	0	0	0	0
	54-64	---	---	---	---	---	---	---
Softback-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-4	9.0-20	---	6.1-7.3	0	0	0	0
	4-10	9.0-20	---	6.1-7.3	0	0	0	0
	10-24	8.0-20	---	6.1-7.3	0	0	0	0
	24-30	10-20	---	6.1-7.3	0	0	0	0
	30-39	10-25	---	6.1-7.3	0	0	0	0
	39-63	10-25	---	6.1-7.3	0	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>In</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
20: Bergquist-----	0-5	4.0-15	---	6.6-7.8	0	0	0	0
	5-12	4.0-15	---	6.6-7.8	0	0	0	0
	12-54	1.0-9.0	---	6.6-7.8	0	0	0	0
	54-64	---	---	---	---	---	---	---
Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
21: Bothwell-----	0-6	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	6-25	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	25-45	15-25	---	6.6-8.4	0	0	0.0-2.0	0
	45-60	10-20	---	6.6-8.4	5-15	0	0.0-2.0	0
22: Bothwell-----	0-6	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	6-25	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	25-45	15-25	---	6.6-8.4	0	0	0.0-2.0	0
	45-60	10-20	---	6.6-8.4	5-15	0	0.0-2.0	0
23: Bothwell-----	0-6	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	6-25	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	25-45	15-25	---	6.6-8.4	0	0	0.0-2.0	0
	45-60	10-20	---	6.6-8.4	5-15	0	0.0-2.0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Justesen-----	0-6	7.0-20	---	6.6-7.3	0	0	0	0
	6-37	10-30	---	6.6-7.8	0	0	0	0
	37-60	10-20	---	7.4-8.4	15-30	0	0	0
24: Bothwell-----	0-6	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	6-25	10-20	---	6.6-7.8	0	0	0.0-2.0	0
	25-45	15-25	---	6.6-8.4	0	0	0.0-2.0	0
	45-60	10-20	---	6.6-8.4	5-15	0	0.0-2.0	0
Thatcher-----	0-8	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0
	8-21	11-21	---	6.6-8.4	0	0	0.0-2.0	0
	21-60	5.0-15	---	7.4-9.0	15-25	0	0.0-2.0	0
25: Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5
Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5
26: Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
26: Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5
27: Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5
Niter-----	0-8	25-35	---	7.4-8.4	10-20	0	0	0
	8-19	25-35	---	7.4-8.4	20-25	0	0	0
	19-60	30-45	---	7.4-8.4	20-25	0-5	0.0-2.0	0-5
28: Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5
Niter-----	0-8	25-35	---	7.4-8.4	10-20	0	0	0
	8-19	25-35	---	7.4-8.4	20-25	0	0	0
	19-60	30-45	---	7.4-8.4	20-25	0-5	0.0-2.0	0-5
29: Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5
Niter-----	0-8	25-35	---	7.4-8.4	10-20	0	0	0
	8-19	25-35	---	7.4-8.4	20-25	0	0	0
	19-60	30-45	---	7.4-8.4	20-25	0-5	0.0-2.0	0-5
30: Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Yago-----	0-10	15-30	---	5.6-6.5	0	0	0	0
	10-45	15-30	---	6.1-7.3	0-5	0	0	0
	45-60	10-25	---	6.6-7.8	1-10	0	0	0-2
31: Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
Yago-----	0-10	15-30	---	5.6-6.5	0	0	0	0
	10-45	15-30	---	6.1-7.3	0-5	0	0	0
	45-60	10-25	---	6.6-7.8	1-10	0	0	0-2
32: Camelback-----	0-3	9.0-20	---	7.4-7.8	0	0	0	0
	3-14	9.0-20	---	7.4-7.8	0	0	0	0
	14-22	10-20	---	7.4-7.8	0	0	0	0
	22-32	15-25	---	7.4-7.8	0	0	0	0
	32-50	10-20	---	7.4-7.8	0	0	0	0
	50-61	6.0-15	---	7.4-7.8	0	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
32: Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
33: Camelback-----	0-3	9.0-20	---	7.4-7.8	0	0	0	0
	3-14	9.0-20	---	7.4-7.8	0	0	0	0
	14-22	10-20	---	7.4-7.8	0	0	0	0
	22-32	15-25	---	7.4-7.8	0	0	0	0
	32-50	10-20	---	7.4-7.8	0	0	0	0
	50-61	6.0-15	---	7.4-7.8	0	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Valmar-----	0-9	9.0-20	---	6.1-7.3	0	0	0	0
	9-14	10-20	---	6.6-7.8	0	0	0	0
	14-24	10-15	---	6.6-7.8	0	0	0	0
	24-34	---	---	---	---	---	---	---
34: Cedarhill-----	0-8	6.0-15	---	7.4-7.8	10-15	0	0	0
	8-17	6.0-13	---	7.4-8.4	15-35	0	0	0
	17-60	4.0-10	---	7.9-8.4	15-35	0	0	0
35: Cedarhill-----	0-8	6.0-15	---	7.4-7.8	10-15	0	0	0
	8-17	6.0-13	---	7.4-8.4	15-35	0	0	0
	17-60	4.0-10	---	7.9-8.4	15-35	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Ricrest-----	0-6	10-25	---	7.4-8.4	0-5	0	0	0
	6-20	11-25	---	7.4-8.4	5-15	0	0	0
	20-60	9.0-25	---	7.4-8.4	15-40	0	0.0-2.0	0
36: Cedarhill-----	0-8	6.0-15	---	7.4-7.8	10-15	0	0	0
	8-17	6.0-13	---	7.4-8.4	15-35	0	0	0
	17-60	4.0-10	---	7.9-8.4	15-35	0	0	0
Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
Ridgecrest-----	0-14	7.0-20	---	7.4-8.4	10-40	0	0	0
	14-27	4.0-10	---	7.4-8.4	40-70	0	0.0-2.0	0
	27-37	---	---	---	---	---	---	---
37: Chesbrook-----	0-2	---	20-30	4.5-5.5	0	0	0	0
	2-20	13-25	---	7.9-9.0	25-40	0	0.0-2.0	0-3
	20-48	9.0-25	---	7.9-9.0	40-75	0	0.0-2.0	0-3
	48-62	7.0-20	---	7.9-9.0	25-40	0	0.0-2.0	0-3

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
37:								
Bear Lake-----	0-11	12-30	---	7.4-8.4	15-35	0	0.0-2.0	0-2
	11-20	15-25	---	7.9-8.4	15-40	0	0.0-2.0	0-2
	20-26	6.0-20	---	7.9-8.4	10-35	0	0.0-2.0	0-2
	26-60	0.0-1.0	---	7.4-8.4	0-15	0	0.0-2.0	0-2
38:								
Cloudless-----	0-6	9.0-20	---	6.1-7.3	0	0	0	0
	6-15	15-20	---	6.1-7.3	0	0	0	0
	15-21	20-25	---	6.1-7.3	0	0	0	0
	21-60	13-25	---	6.1-7.3	0-5	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
39:								
Cloudless-----	0-6	9.0-20	---	6.1-7.3	0	0	0	0
	6-15	15-20	---	6.1-7.3	0	0	0	0
	15-21	20-25	---	6.1-7.3	0	0	0	0
	21-60	13-25	---	6.1-7.3	0-5	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Howcan-----	0-8	7.0-15	---	6.6-7.3	0	0	0	0
	8-25	8.0-25	---	6.6-7.3	0	0	0	0
	25-36	8.0-25	---	6.6-7.3	0	0	0	0
	36-60	6.0-15	---	6.6-7.3	0	0	0	0
40:								
Copenhagen-----	0-7	10-20	---	6.6-7.8	0-5	0	0	0
	7-13	10-20	---	6.6-7.8	0-5	0	0	0
	13-23	---	---	---	---	---	---	---
Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
41:								
Delish-----	0-3	6.0-15	---	7.9-8.4	10-15	0	2.0-8.0	0-5
	3-7	5.0-15	---	7.9-9.0	5-15	0	0.0-2.0	0-5
	7-61	5.0-15	---	7.9-9.0	5-15	0	0.0-2.0	0-5
Cachecan-----	0-5	7.0-15	---	7.9-9.0	1-15	0	0.0-2.0	0-13
	5-20	3.0-15	---	7.9-9.0	1-15	0	0.0-2.0	5-13
	20-37	10-20	---	7.9-9.0	5-15	0	2.0-4.0	5-13
	37-61	15-25	---	8.5-9.0	5-20	0	0.0-2.0	5-13
Stinkcreek-----	0-11	15-30	---	9.1-11.0	5-15	0	2.0-4.0	13-30
	11-21	10-25	---	9.1-11.0	15-25	0	2.0-4.0	13-30
	21-40	1.0-7.0	---	7.9-11.0	10-20	0	0.0-2.0	0-13
	40-60	1.0-3.0	---	7.9-11.0	1-15	0	0.0-2.0	0-13

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
42: Downata-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-12	11-25	---	7.4-8.4	5-35	0	0.0-4.0	0-5
	12-59	15-25	---	7.4-8.4	15-40	0	0.0-4.0	0-5
	59-63	10-20	---	7.4-8.4	0-45	0	0.0-2.0	0-5
43: Dranburn-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-17	15-25	---	6.1-7.3	0	0	0	0
	17-22	15-30	---	6.1-7.3	0	0	0	0
	22-48	15-25	---	6.1-7.3	0	0	0	0
	48-61	10-25	---	6.1-7.3	0	0	0	0
Robin-----	0-2	10-25	---	6.6-7.3	0	0	0	0
	2-23	10-20	---	6.6-7.3	0	0	0	0
	23-27	10-20	---	6.6-7.3	0	0	0	0
	27-60	10-25	---	6.6-7.3	0	0	0	0
44: Enochville-----	0-12	20-30	---	6.1-7.3	0	0	0	0
	12-43	20-35	---	6.6-8.4	0	0	0	0
	43-60	10-15	---	6.6-8.4	0	0	0.0-2.0	0
45: Foxol-----	0-3	10-20	---	6.1-7.3	0	0	0	0
	3-9	10-20	---	6.1-6.5	0	0	0	0
	9-17	10-20	---	5.6-6.5	0	0	0	0
	17-27	---	---	---	---	---	---	---
Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
46: Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Camelback-----	0-3	9.0-20	---	7.4-7.8	0	0	0	0
	3-14	9.0-20	---	7.4-7.8	0	0	0	0
	14-22	10-20	---	7.4-7.8	0	0	0	0
	22-32	15-25	---	7.4-7.8	0	0	0	0
	32-50	10-20	---	7.4-7.8	0	0	0	0
	50-61	6.0-15	---	7.4-7.8	0	0	0	0
Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
47: Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Lanoak-----	0-21	10-20	---	6.1-7.8	0	0	0	0
	21-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0



# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
47: Camelback-----	0-3	9.0-20	---	7.4-7.8	0	0	0	0
	3-14	9.0-20	---	7.4-7.8	0	0	0	0
	14-22	10-20	---	7.4-7.8	0	0	0	0
	22-32	15-25	---	7.4-7.8	0	0	0	0
	32-50	10-20	---	7.4-7.8	0	0	0	0
	50-61	6.0-15	---	7.4-7.8	0	0	0	0
48: Haploxerolls-----	0-6	7.0-25	---	6.6-7.8	0	0	0	0
	6-17	5.0-25	---	6.6-8.4	0-20	0	0	0-5
	17-60	1.0-20	---	7.4-9.0	0-30	0	0	0-5
Xerorthents-----	0-3	4.0-20	---	7.4-9.0	1-40	0	0	0
	3-11	4.0-20	---	7.4-9.0	1-40	0	0.0-2.0	0-3
	11-21	---	---	---	---	---	---	---
49: Hendricks-----	0-5	13-20	---	6.1-7.3	0	0	0.0-2.0	0
	5-15	13-20	---	6.1-7.3	0	0	0.0-2.0	0
	15-66	15-22	---	6.1-7.3	0	0	0.0-2.0	0
50: Holmes-----	0-4	10-20	---	6.6-7.8	0	0	0	0
	4-20	10-20	---	6.6-7.8	0	0	0	0
	20-61	0.0-5.0	---	7.4-7.8	0	0	0	0
51: Hondee-----	0-6	9.0-20	---	7.4-8.4	0	0	0	0
	6-16	5.0-15	---	7.4-8.4	0	0	0	0
	16-19	4.0-10	---	7.4-8.4	5-15	0	0	0
	19-39	4.0-10	---	7.4-8.4	15-35	0	0	0
	39-60	1.0-9.0	---	7.4-8.4	10-30	0	0.0-2.0	0-5
52: Hondee-----	0-6	9.0-20	---	7.4-8.4	0	0	0	0
	6-16	5.0-15	---	7.4-8.4	0	0	0	0
	16-19	4.0-10	---	7.4-8.4	5-15	0	0	0
	19-39	4.0-10	---	7.4-8.4	15-35	0	0	0
	39-60	1.0-9.0	---	7.4-8.4	10-30	0	0.0-2.0	0-5
53: Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
54: Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
Ricrest-----	0-6	10-25	---	7.4-8.4	0-5	0	0	0
	6-20	11-25	---	7.4-8.4	5-15	0	0	0
	20-60	9.0-25	---	7.4-8.4	15-40	0	0.0-2.0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
55:								
Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
Sprollo-----	0-3	7.0-15	---	7.4-8.4	10-40	0	0	0
	3-14	6.0-15	---	7.9-8.4	20-45	0	0	0-5
	14-39	5.0-10	---	7.9-9.0	40-75	0	0.0-2.0	0-5
	39-49	---	---	---	---	---	---	---
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
56:								
Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
57:								
Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5
58:								
Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5
59:								
Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5
Dirtyhead-----	0-6	6.0-15	---	7.4-8.4	10-25	0	0	0
	6-38	5.0-13	---	7.4-8.4	15-35	0	0	0
	38-48	---	---	---	---	---	---	---
60:								
Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5
Harroun-----	0-7	5.0-15	---	7.4-8.4	20-30	0	0.0-2.0	0
	7-15	5.0-15	---	7.4-8.4	25-35	0	2.0-4.0	0
	15-28	---	---	---	---	---	---	---
	28-60	3.0-11	---	7.9-9.0	5-15	0	2.0-4.0	0-5
Lanoak-----	0-36	10-20	---	6.1-7.8	0	0	0	0
	36-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0
61:								
Huffman-----	0-7	9.0-20	---	6.6-7.8	0	0	0	0
	7-28	8.0-20	---	7.4-9.0	0	0	0.0-2.0	0-5
	28-60	11-20	---	7.4-9.0	15-30	0	0.0-2.0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
61: Wursten-----	0-5	9.0-20	---	7.4-8.4	5-15	0	0	0
	5-17	7.0-15	---	7.9-8.4	15-30	0	0	0
	17-31	5.0-10	---	7.9-9.0	15-30	0	0	0-8
	31-60	4.0-10	---	7.9-9.0	10-30	0	0	5-13
62: Iphil-----	0-8	7.0-15	---	7.4-9.0	5-15	0	0.0-2.0	0
	8-15	6.0-15	---	7.4-9.0	10-15	0	0.0-2.0	0-8
	15-60	6.0-15	---	7.4-9.0	15-35	0	0.0-2.0	5-15
Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
63: Ireland-----	0-2	10-20	---	7.4-8.4	0	0	0	0
	2-7	8.0-20	---	7.4-8.4	0	0	0	0
	7-14	7.0-15	---	7.4-8.4	1-10	0	0	0
	14-23	5.0-15	---	7.9-8.4	10-35	0	0	0-5
	23-33	---	---	---	---	---	---	---
Polumar-----	0-6	10-20	---	7.4-7.8	0	0	0	0
	6-11	10-20	---	7.4-8.4	0	0	0	0
	11-18	8.0-20	---	7.4-8.4	0	0	0	0
	18-22	8.0-20	---	7.9-8.4	1-15	0	0	0
	22-46	6.0-15	---	7.9-8.4	15-30	0	0	0-2
	46-56	---	---	---	---	---	---	---
64: Kabear-----	0-9	6.0-15	---	6.6-7.8	0	0	0.0-2.0	0
	9-45	4.0-15	---	6.6-7.8	0	0	0.0-2.0	0
	45-60	3.0-10	---	6.6-7.8	0	0	0.0-2.0	0
Staberg-----	0-10	8.0-20	---	6.6-7.3	0	0	0	0
	10-23	10-20	---	6.6-7.3	0	0	0	0
	23-33	10-20	---	6.6-7.8	0	0	0	0
	33-38	4.0-10	---	6.6-7.8	0	0	0	0
	38-48	---	---	---	---	---	---	---
Copenhagen-----	0-7	10-20	---	6.6-7.8	0-5	0	0	0
	7-13	10-20	---	6.6-7.8	0-5	0	0	0
	13-23	---	---	---	---	---	---	---
65: Kabear-----	0-9	6.0-15	---	6.6-7.8	0	0	0.0-2.0	0
	9-45	4.0-15	---	6.6-7.8	0	0	0.0-2.0	0
	45-60	3.0-10	---	6.6-7.8	0	0	0.0-2.0	0
Staberg-----	0-10	8.0-20	---	6.6-7.3	0	0	0	0
	10-23	10-20	---	6.6-7.3	0	0	0	0
	23-33	10-20	---	6.6-7.8	0	0	0	0
	33-38	4.0-10	---	6.6-7.8	0	0	0	0
	38-48	---	---	---	---	---	---	---
Copenhagen-----	0-7	10-20	---	6.6-7.8	0-5	0	0	0
	7-13	10-20	---	6.6-7.8	0-5	0	0	0
	13-23	---	---	---	---	---	---	---

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
66: Kearns-----	0-16	10-20	---	7.4-8.4	0	0	0	0
	16-38	10-20	---	7.4-8.4	0-5	0	0	0
	38-60	5.0-15	---	7.9-9.0	5-25	0	0.0-2.0	0-5
67: Kearnsar-----	0-9	10-25	---	7.9-8.4	1-10	0	0	0
	9-23	15-30	---	7.9-8.4	5-15	0	0	0
	23-27	10-25	---	7.9-8.4	15-35	0	0.0-2.0	0-2
	27-45	10-20	---	7.9-9.0	15-35	0	0.0-2.0	0-5
	45-60	10-20	---	7.9-9.0	10-30	0	0.0-2.0	0-5
Battle Creek-----	0-8	15-30	---	7.4-7.8	0-5	0	0.0-2.0	0-2
	8-11	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0-2
	11-19	15-40	---	7.9-8.4	0-5	0	0.0-2.0	0-2
	19-40	15-40	---	7.9-8.4	15-30	0	0.0-2.0	0-2
	40-60	15-35	---	7.9-9.0	15-30	0	0.0-2.0	2-8
68: Kidman-----	0-12	7.0-15	---	7.4-7.8	0	0	0	0
	12-25	3.0-15	---	7.4-8.4	0	0	0	0-3
	25-44	2.0-10	---	7.9-8.4	15-30	0	0	0-3
	44-60	2.0-10	---	7.9-9.0	15-30	0	0	0-8
69: Kidman-----	0-12	7.0-15	---	7.4-7.8	0	0	0	0
	12-25	3.0-15	---	7.4-8.4	0	0	0	0-3
	25-44	2.0-10	---	7.9-8.4	15-30	0	0	0-3
	44-60	2.0-10	---	7.9-9.0	15-30	0	0	0-8
70: Kidman-----	0-12	7.0-15	---	7.4-7.8	0	0	0	0
	12-25	3.0-15	---	7.4-8.4	0	0	0	0-3
	25-44	2.0-10	---	7.9-8.4	15-30	0	0	0-3
	44-60	2.0-10	---	7.9-9.0	15-30	0	0	0-8
71: Kidman, wet-----	0-12	7.0-15	---	7.4-7.8	0	0	0	0
	12-25	3.0-15	---	7.4-8.4	0	0	0	0-3
	25-44	2.0-10	---	7.9-8.4	15-30	0	0	0-3
	44-60	2.0-10	---	7.9-9.0	15-30	0	0	0-8
72: Kidman-----	0-12	7.0-15	---	7.4-7.8	0	0	0	0
	12-25	3.0-15	---	7.4-8.4	0	0	0	0-3
	25-44	2.0-10	---	7.9-8.4	15-30	0	0	0-3
	44-60	2.0-10	---	7.9-9.0	15-30	0	0	0-8
Sterling-----	0-8	5.0-20	---	7.4-8.4	5-15	0	0	0-5
	8-66	6.0-20	---	7.4-8.4	10-40	0	0	0-5
73: Lando-----	0-5	15-20	---	7.4-7.8	5-10	0	0	0-8
	5-14	10-25	---	7.4-8.4	10-20	0	0	0-8
	14-33	15-25	---	7.4-8.4	15-30	0	0.0-2.0	0-8
	33-60	10-30	---	7.9-8.4	15-30	0	0.0-2.0	0-8
74: Lanoak-----	0-36	10-20	---	6.1-7.8	0	0	0	0
	36-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
75:								
Lanoak-----	0-36	10-20	---	6.1-7.8	0	0	0	0
	36-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0
76:								
Lanoak-----	0-36	10-20	---	6.1-7.8	0	0	0	0
	36-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0
Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
77:								
Lanoak-----	0-36	10-20	---	6.1-7.8	0	0	0	0
	36-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0
Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
78:								
Lanoak-----	0-21	10-20	---	6.1-7.8	0	0	0	0
	21-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
79:								
Lanoak-----	0-36	10-20	---	6.1-7.8	0	0	0	0
	36-50	10-20	---	6.1-7.8	0	0	0	0
	50-60	10-25	---	6.6-8.4	0-15	0	0	0
Thatcher-----	0-8	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0
	8-21	11-21	---	6.6-8.4	0	0	0.0-2.0	0
	21-60	5.0-15	---	7.4-9.0	15-25	0	0.0-2.0	0
80:								
Layton-----	0-13	9.0-15	---	6.6-7.8	0	0	0	0
	13-19	5.0-14	---	6.6-7.8	0-5	0	0	0
	19-34	3.0-10	---	7.4-8.4	5-20	0	0	0
	34-64	2.0-7.0	---	6.6-8.4	0-10	0	0	0
81:								
Layton-----	0-13	9.0-15	---	6.6-7.8	0	0	0	0
	13-19	5.0-14	---	6.6-7.8	0-5	0	0	0
	19-34	3.0-10	---	7.4-8.4	5-20	0	0	0
	34-64	2.0-7.0	---	6.6-8.4	0-10	0	0	0
82:								
Lizdale-----	0-6	10-20	---	7.9-8.4	10-20	0	0	0-5
	6-13	8.0-20	---	7.9-9.0	25-40	0	0	0-5
	13-52	2.0-10	---	7.9-9.0	40-70	0	0	0-5
	52-64	2.0-8.0	---	7.9-9.0	40-60	0	0	0-5
	64-76	2.0-10	---	7.9-9.0	35-60	0	0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
83: Lizdale-----	0-6	10-20	---	7.9-8.4	10-20	0	0	0-5
	6-13	8.0-20	---	7.9-9.0	25-40	0	0	0-5
	13-52	2.0-10	---	7.9-9.0	40-70	0	0	0-5
	52-64	2.0-8.0	---	7.9-9.0	40-60	0	0	0-5
	64-76	2.0-10	---	7.9-9.0	35-60	0	0	0-5
Searla-----	0-9	9.0-20	---	6.6-7.8	0	0	0	0
	9-28	10-25	---	6.6-7.8	0	0	0	0
	28-60	4.0-15	---	7.4-8.4	1-15	0	0.0-2.0	0-5
84: Logan-----	0-2	---	20-30	4.5-5.5	0	0	0	0
	2-15	20-40	---	7.9-8.4	10-20	0	0.0-4.0	0-3
	15-28	10-25	---	7.9-9.0	20-45	0	0.0-4.0	0-8
	28-47	10-25	---	8.5-9.0	30-45	0	0.0-4.0	5-13
	47-62	10-25	---	8.5-9.0	20-35	0	0.0-4.0	5-13
85: Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
Lizdale-----	0-6	10-20	---	7.9-8.4	10-20	0	0	0-5
	6-13	8.0-20	---	7.9-9.0	25-40	0	0	0-5
	13-52	2.0-10	---	7.9-9.0	40-70	0	0	0-5
	52-64	2.0-8.0	---	7.9-9.0	40-60	0	0	0-5
	64-76	2.0-10	---	7.9-9.0	35-60	0	0	0-5
86: Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
Ricrest-----	0-6	10-25	---	7.4-8.4	0-5	0	0	0
	6-20	11-25	---	7.4-8.4	5-15	0	0	0
	20-60	9.0-25	---	7.4-8.4	15-40	0	0.0-2.0	0
87: Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
88: Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
89: Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
90:								
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
Bancroft-----	0-7	10-20	---	6.1-7.3	0	0	0.0-2.0	0
	7-37	10-25	---	6.1-7.8	0	0	0.0-2.0	0
	37-60	5.0-15	---	7.4-9.0	15-30	0	0.0-2.0	0
91:								
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
92:								
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
93:								
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
94:								
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
Yeates Hollow-----	0-8	10-20	---	6.6-7.3	0	0	0	0
	8-16	10-20	---	6.1-7.3	0	0	0	0
	16-19	15-25	---	6.1-7.3	0	0	0	0
	19-29	15-30	---	6.1-7.3	0	0	0	0
	29-60	15-30	---	6.1-7.3	0	0	0	0
95:								
Maplecreek-----	0-14	8.0-20	---	7.4-8.4	1-10	0	0.0-2.0	0
	14-35	6.0-15	---	7.9-9.0	15-25	0	2.0-4.0	0-5
	35-60	1.0-5.0	---	7.9-9.0	5-20	0	2.0-4.0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
96:								
Maplecreek-----	0-14	8.0-20	---	7.4-8.4	1-10	0	0.0-2.0	0
	14-35	6.0-15	---	7.9-9.0	15-25	0	2.0-4.0	0-5
	35-60	1.0-5.0	---	7.9-9.0	5-20	0	2.0-4.0	0-5
Layton-----	0-13	9.0-15	---	6.6-7.8	0	0	0	0
	13-19	5.0-14	---	6.6-7.8	0-5	0	0	0
	19-34	3.0-10	---	7.4-8.4	5-20	0	0	0
	34-64	2.0-7.0	---	6.6-8.4	0-10	0	0	0
97:								
Merkley-----	0-5	9.0-20	---	7.9-8.4	0-10	0	0.0-2.0	0
	5-31	4.0-11	---	7.9-9.0	10-30	0	2.0-4.0	0-8
	31-50	1.0-8.0	---	7.9-9.0	0-10	0	2.0-4.0	0-8
	50-61	1.0-4.0	---	7.9-9.0	0-10	0	2.0-4.0	0-8
Lago-----	0-9	15-25	---	7.9-9.0	10-30	0	0	0-5
	9-16	15-25	---	7.9-9.0	15-40	0	0	0-5
	16-45	15-30	---	7.9-9.0	15-40	0	0	0-5
	45-60	4.0-15	---	7.9-9.0	5-40	0	0	0-5
Bear Lake-----	0-11	12-30	---	7.4-8.4	15-35	0	0.0-2.0	0-2
	11-20	15-25	---	7.9-8.4	15-40	0	0.0-2.0	0-2
	20-26	6.0-20	---	7.9-8.4	10-35	0	0.0-2.0	0-2
	26-60	0.0-1.0	---	7.4-8.4	0-15	0	0.0-2.0	0-2
98:								
Moonlight-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-2	---	20-30	4.5-5.5	0	0	0	0
	2-26	18-25	---	5.6-7.3	0	0	0	0
	26-62	11-15	---	5.6-7.3	0	0	0	0
Camelback-----	0-3	9.0-20	---	7.4-7.8	0	0	0	0
	3-14	9.0-20	---	7.4-7.8	0	0	0	0
	14-22	10-20	---	7.4-7.8	0	0	0	0
	22-32	15-25	---	7.4-7.8	0	0	0	0
	32-50	10-20	---	7.4-7.8	0	0	0	0
	50-61	6.0-15	---	7.4-7.8	0	0	0	0
99:								
Niter-----	0-8	25-35	---	7.4-8.4	10-20	0	0	0
	8-19	25-35	---	7.4-8.4	20-25	0	0	0
	19-60	30-45	---	7.4-8.4	20-25	0-5	0.0-2.0	0-5
Brifox-----	0-7	25-35	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	7-18	25-40	---	7.4-8.4	10-20	0	0.0-4.0	0-5
	18-60	30-40	---	7.4-8.4	20-35	0-15	0.0-4.0	0-5
100:								
Northwater-----	0-12	8.0-17	---	6.6-7.3	0	0	0	0
	12-28	8.0-20	---	6.1-7.3	0	0	0	0
	28-46	10-20	---	6.1-7.3	0	0	0	0
	46-56	---	---	---	---	---	---	---
Foxol-----	0-3	10-20	---	6.1-7.3	0	0	0	0
	3-9	10-20	---	6.1-6.5	0	0	0	0
	9-17	10-20	---	5.6-6.5	0	0	0	0
	17-27	---	---	---	---	---	---	---



# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>In</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
100: Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
101: Northwater-----	0-12	8.0-17	---	6.6-7.3	0	0	0	0
	12-28	8.0-20	---	6.1-7.3	0	0	0	0
	28-46	10-20	---	6.1-7.3	0	0	0	0
	46-56	---	---	---	---	---	---	---
Povey-----	0-17	10-20	---	6.6-7.8	0	0	0	0
	17-38	10-25	---	6.1-7.3	0	0	0	0
	38-60	4.0-15	---	6.1-7.3	0	0	0	0
102: Northwater-----	0-12	8.0-17	---	6.6-7.3	0	0	0	0
	12-28	8.0-20	---	6.1-7.3	0	0	0	0
	28-46	10-20	---	6.1-7.3	0	0	0	0
	46-56	---	---	---	---	---	---	---
Povey-----	0-17	10-20	---	6.6-7.8	0	0	0	0
	17-38	10-25	---	6.1-7.3	0	0	0	0
	38-60	4.0-15	---	6.1-7.3	0	0	0	0
103: Nyman-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-6	9.0-20	---	7.4-7.8	0	0	0	0
	6-12	7.0-20	---	6.6-7.8	0	0	0	0
	12-20	5.0-15	---	6.6-7.8	0	0	0	0
	20-25	4.0-15	---	6.6-7.8	0	0	0	0
	25-36	4.0-9.0	---	6.6-7.8	0	0	0	0
	36-46	---	---	---	---	---	---	---
Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
Copenhagen-----	0-7	10-20	---	6.6-7.8	0-5	0	0	0
	7-13	10-20	---	6.6-7.8	0-5	0	0	0
	13-23	---	---	---	---	---	---	---
104: Oxford-----	0-5	35-50	---	7.4-8.4	1-15	0	0	0
	5-26	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-63	30-45	---	7.4-8.4	1-15	1-10	2.0-4.0	0-5
Banida-----	0-6	15-30	---	7.4-8.4	0	0	0.0-2.0	0
	6-22	20-35	---	7.4-8.4	0-15	0-5	0.0-2.0	0
	22-35	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	35-64	15-35	---	7.4-8.4	5-15	0	2.0-4.0	0-5
105: Oxford-----	0-5	35-50	---	7.4-8.4	1-15	0	0	0
	5-26	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-63	30-45	---	7.4-8.4	1-15	1-10	2.0-4.0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
105: Banida-----	0-6	15-30	---	7.4-8.4	0	0	0.0-2.0	0
	6-22	20-35	---	7.4-8.4	0-15	0-5	0.0-2.0	0
	22-35	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	35-64	15-35	---	7.4-8.4	5-15	0	2.0-4.0	0-5
106: Oxford-----	0-5	35-50	---	7.4-8.4	1-15	0	0	0
	5-26	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-63	30-45	---	7.4-8.4	1-15	1-10	2.0-4.0	0-5
Banida-----	0-6	15-30	---	7.4-8.4	0	0	0.0-2.0	0
	6-22	20-35	---	7.4-8.4	0-15	0-5	0.0-2.0	0
	22-35	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	35-64	15-35	---	7.4-8.4	5-15	0	2.0-4.0	0-5
107: Oxford-----	0-5	35-50	---	7.4-8.4	1-15	0	0	0
	5-26	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-63	30-45	---	7.4-8.4	1-15	1-10	2.0-4.0	0-5
Gullied land-----	0-60	---	---	---	---	---	---	---
108: Parkay-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-3	12-25	---	6.6-7.3	0	0	0	0
	3-12	10-25	---	6.6-7.3	0	0	0	0
	12-21	10-25	---	6.6-7.8	0	0	0	0
	21-29	10-20	---	6.6-7.8	0	0	0	0
	29-47	10-25	---	6.6-7.8	0	0	0	0
	47-57	---	---	---	---	---	---	---
Povey-----	0-17	10-20	---	6.6-7.8	0	0	0	0
	17-38	10-25	---	6.1-7.3	0	0	0	0
	38-60	4.0-15	---	6.1-7.3	0	0	0	0
109: Parleys-----	0-4	10-25	---	6.6-7.8	0	0	0	0
	4-13	10-20	---	6.6-7.8	0	0	0	0
	13-18	10-25	---	7.4-7.8	0	0	0	0
	18-35	10-25	---	7.4-8.4	10-30	0	0	0-3
	35-50	10-20	---	7.9-8.4	15-30	0	0	0-3
	50-60	5.0-15	---	7.9-8.4	10-30	0	0	0-3
110: Parleys-----	0-4	10-25	---	6.6-7.8	0	0	0	0
	4-13	10-20	---	6.6-7.8	0	0	0	0
	13-18	10-25	---	7.4-7.8	0	0	0	0
	18-35	10-25	---	7.4-8.4	10-30	0	0	0-3
	35-50	10-20	---	7.9-8.4	15-30	0	0	0-3
	50-60	5.0-15	---	7.9-8.4	10-30	0	0	0-3
111: Parleys, wet-----	0-4	10-25	---	6.6-7.8	0	0	0	0
	4-13	10-20	---	6.6-7.8	0	0	0	0
	13-18	10-25	---	7.4-7.8	0	0	0	0
	18-35	10-25	---	7.4-8.4	10-30	0	0	0-3
	35-50	10-20	---	7.9-8.4	15-30	0	0	0-3
	50-60	5.0-15	---	7.9-8.4	10-30	0	0	0-3

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
112: Pavohroo-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-3	---	20-30	4.5-5.5	0	0	0	0
	3-6	11-25	---	6.1-7.3	0	0	0	0
	6-29	10-20	---	6.1-7.3	0	0	0	0
	29-63	10-15	---	6.6-8.4	0-5	0	0.0-2.0	0
Sedgway-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-2	---	20-30	4.5-5.5	0	0	0	0
	2-7	10-25	---	5.6-6.5	0	0	0	0
	7-23	10-20	---	5.6-6.5	0	0	0	0
	23-62	10-20	---	5.6-6.5	0	0	0	0
Toponce-----	0-3	15-25	---	5.6-6.5	0	0	0	0
	3-14	10-25	---	5.6-6.5	0	0	0	0
	14-60	15-35	---	5.6-6.5	0	0	0	0
113: Picabo-----	0-4	10-20	---	7.9-9.0	20-50	0	2.0-4.0	13-25
	4-16	6.0-20	---	7.9-9.0	25-55	0	2.0-4.0	13-25
	16-45	4.0-15	---	7.9-8.4	40-70	0	0.0-4.0	1-8
	45-51	4.0-10	---	7.9-8.4	20-40	0	0.0-4.0	0-8
	51-65	4.0-10	---	7.9-8.4	15-40	0	0.0-4.0	0-8
Thatcherflats-----	0-4	6.0-15	---	7.9-9.0	0-5	0	0.0-2.0	5-15
	4-16	15-35	---	8.5-9.0	0-5	0	2.0-4.0	20-30
	16-61	15-30	---	8.5-9.0	5-25	0-5	4.0-8.0	45-120
114: Pits, gravel-----	0-60	---	---	---	---	---	---	---
115: Pollynot-----	0-9	10-20	---	7.4-8.4	0	0	0	0
	9-13	8.0-20	---	7.4-8.4	0	0	0	0
	13-15	10-20	---	7.9-8.4	0	0	0	0
	15-26	10-20	---	7.9-8.4	0	0	0	0
	26-44	10-15	---	7.9-9.0	15-25	0	0	1-13
	44-61	2.0-8.0	---	7.9-9.0	10-15	0	0	1-13
116: Pollynot-----	0-9	10-20	---	7.4-8.4	0	0	0	0
	9-13	8.0-20	---	7.4-8.4	0	0	0	0
	13-15	10-20	---	7.9-8.4	0	0	0	0
	15-26	10-20	---	7.9-8.4	0	0	0	0
	26-44	10-15	---	7.9-9.0	15-25	0	0	1-13
	44-61	2.0-8.0	---	7.9-9.0	10-15	0	0	1-13
117: Pollynot-----	0-9	10-20	---	7.4-8.4	0	0	0	0
	9-13	8.0-20	---	7.4-8.4	0	0	0	0
	13-15	10-20	---	7.9-8.4	0	0	0	0
	15-26	10-20	---	7.9-8.4	0	0	0	0
	26-44	10-15	---	7.9-9.0	15-25	0	0	1-13
	44-61	2.0-8.0	---	7.9-9.0	10-15	0	0	1-13

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
118: Pollynnot-----	0-9	10-20	---	7.4-8.4	0	0	0	0
	9-13	8.0-20	---	7.4-8.4	0	0	0	0
	13-15	10-20	---	7.9-8.4	0	0	0	0
	15-26	10-20	---	7.9-8.4	0	0	0	0
	26-44	10-15	---	7.9-9.0	15-25	0	0	1-13
	44-61	2.0-8.0	---	7.9-9.0	10-15	0	0	1-13
119: Polumar-----	0-6	10-20	---	7.4-7.8	0	0	0	0
	6-11	10-20	---	7.4-8.4	0	0	0	0
	11-18	8.0-20	---	7.4-8.4	0	0	0	0
	18-22	8.0-20	---	7.9-8.4	1-15	0	0	0
	22-46	6.0-15	---	7.9-8.4	15-30	0	0	0-2
	46-56	---	---	---	---	---	---	---
Ireland-----	0-2	10-20	---	7.4-8.4	0	0	0	0
	2-7	8.0-20	---	7.4-8.4	0	0	0	0
	7-14	7.0-15	---	7.4-8.4	1-10	0	0	0
	14-23	5.0-15	---	7.9-8.4	10-35	0	0	0-5
	23-33	---	---	---	---	---	---	---
120: Polumar-----	0-6	10-20	---	7.4-7.8	0	0	0	0
	6-11	10-20	---	7.4-8.4	0	0	0	0
	11-18	8.0-20	---	7.4-8.4	0	0	0	0
	18-22	8.0-20	---	7.9-8.4	1-15	0	0	0
	22-46	6.0-15	---	7.9-8.4	15-30	0	0	0-2
	46-56	---	---	---	---	---	---	---
Sprollo-----	0-3	7.0-15	---	7.4-8.4	10-40	0	0	0
	3-14	6.0-15	---	7.9-8.4	20-45	0	0	0-5
	14-39	5.0-10	---	7.9-9.0	40-75	0	0.0-2.0	0-5
	39-49	---	---	---	---	---	---	---
Ireland-----	0-2	10-20	---	7.4-8.4	0	0	0	0
	2-7	8.0-20	---	7.4-8.4	0	0	0	0
	7-14	7.0-15	---	7.4-8.4	1-10	0	0	0
	14-23	5.0-15	---	7.9-8.4	10-35	0	0	0-5
	23-33	---	---	---	---	---	---	---
121: Povey-----	0-17	10-20	---	6.6-7.8	0	0	0	0
	17-38	10-25	---	6.1-7.3	0	0	0	0
	38-60	4.0-15	---	6.1-7.3	0	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
122: Povey-----	0-17	10-20	---	6.6-7.8	0	0	0	0
	17-38	10-25	---	6.1-7.3	0	0	0	0
	38-60	4.0-15	---	6.1-7.3	0	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
122: Parkay-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-3	12-25	---	6.6-7.3	0	0	0	0
	3-12	10-25	---	6.6-7.3	0	0	0	0
	12-21	10-25	---	6.6-7.8	0	0	0	0
	21-29	10-20	---	6.6-7.8	0	0	0	0
	29-47	10-25	---	6.6-7.8	0	0	0	0
	47-57	---	---	---	---	---	---	---
123: Preston-----	0-8	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	8-15	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	15-65	1.0-7.0	---	7.4-8.4	0-10	0	0	0-2
124: Preston-----	0-8	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	8-15	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	15-65	1.0-7.0	---	7.4-8.4	0-10	0	0	0-2
125: Preston-----	0-8	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	8-15	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	15-65	1.0-7.0	---	7.4-8.4	0-10	0	0	0-2
126: Preston-----	0-8	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	8-15	1.0-5.0	---	7.4-7.8	0-1	0	0	0
	15-65	1.0-7.0	---	7.4-8.4	0-10	0	0	0-2
Xerorthents-----	0-3	4.0-20	---	7.4-9.0	1-40	0	0	0
	3-11	4.0-20	---	7.4-9.0	1-40	0	0.0-2.0	0-3
	11-21	---	---	---	---	---	---	---
127: Ricrest-----	0-6	10-25	---	7.4-8.4	0-5	0	0	0
	6-20	11-25	---	7.4-8.4	5-15	0	0	0
	20-60	9.0-25	---	7.4-8.4	15-40	0	0.0-2.0	0
128: Sanyon-----	0-5	6.0-15	---	7.9-8.4	5-15	0	0	0
	5-17	4.0-10	---	7.9-8.4	10-20	0	0	0
	17-27	---	---	---	---	---	---	---
Staberg-----	0-10	8.0-20	---	6.6-7.3	0	0	0	0
	10-23	10-20	---	6.6-7.3	0	0	0	0
	23-33	10-20	---	6.6-7.8	0	0	0	0
	33-38	4.0-10	---	6.6-7.8	0	0	0	0
	38-48	---	---	---	---	---	---	---
Kabear-----	0-9	6.0-15	---	6.6-7.8	0	0	0.0-2.0	0
	9-45	4.0-15	---	6.6-7.8	0	0	0.0-2.0	0
	45-60	3.0-10	---	6.6-7.8	0	0	0.0-2.0	0
129: Smidale-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-9	14-25	---	6.1-7.3	0	0	0	0
	9-26	10-25	---	6.6-7.3	0	0	0	0
	26-39	15-25	---	6.6-7.3	0	0	0	0
	39-46	15-25	---	6.6-7.3	0	0	0	0
	46-61	10-20	---	6.6-7.3	0	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
130: Smidale-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-9	14-25	---	6.1-7.3	0	0	0	0
	9-26	10-25	---	6.6-7.3	0	0	0	0
	26-39	15-25	---	6.6-7.3	0	0	0	0
	39-46	15-25	---	6.6-7.3	0	0	0	0
	46-61	10-20	---	6.6-7.3	0	0	0	0
Staberg-----	0-10	8.0-20	---	6.6-7.3	0	0	0	0
	10-23	10-20	---	6.6-7.3	0	0	0	0
	23-33	10-20	---	6.6-7.8	0	0	0	0
	33-38	4.0-10	---	6.6-7.8	0	0	0	0
	38-48	---	---	---	---	---	---	---
131: Sprollo-----	0-3	7.0-15	---	7.4-8.4	10-40	0	0	0
	3-14	6.0-15	---	7.9-8.4	20-45	0	0	0-5
	14-39	5.0-10	---	7.9-9.0	40-75	0	0.0-2.0	0-5
	39-49	---	---	---	---	---	---	---
Hondoho-----	0-3	10-20	---	7.4-7.8	0	0	0	0
	3-19	8.0-20	---	7.4-8.4	5-30	0	0	0
	19-60	9.0-20	---	7.4-8.4	15-40	0	0	0
132: Sprollo-----	0-3	7.0-15	---	7.4-8.4	10-40	0	0	0
	3-14	6.0-15	---	7.9-8.4	20-45	0	0	0-5
	14-39	5.0-10	---	7.9-9.0	40-75	0	0.0-2.0	0-5
	39-49	---	---	---	---	---	---	---
Hymas-----	0-3	10-15	---	6.6-8.4	5-15	0	0	0
	3-14	6.0-15	---	7.4-8.4	10-45	0	0	0
	14-17	5.0-15	---	7.4-9.0	40-50	0	0.0-2.0	0-5
	17-27	---	---	---	---	---	---	---
133: Sterling-----	0-8	5.0-20	---	7.4-8.4	5-15	0	0	0-5
	8-66	6.0-20	---	7.4-8.4	10-40	0	0	0-5
134: Sterling-----	0-8	5.0-20	---	7.4-8.4	5-15	0	0	0-5
	8-66	6.0-20	---	7.4-8.4	10-40	0	0	0-5
135: Sterling-----	0-8	5.0-20	---	7.4-8.4	5-15	0	0	0-5
	8-66	6.0-20	---	7.4-8.4	10-40	0	0	0-5
136: Sterling-----	0-8	5.0-20	---	7.4-8.4	5-15	0	0	0-5
	8-66	6.0-20	---	7.4-8.4	10-40	0	0	0-5
137: Sterling-----	0-8	5.0-20	---	7.4-8.4	5-15	0	0	0-5
	8-66	6.0-20	---	7.4-8.4	10-40	0	0	0-5
Parleys-----	0-4	10-25	---	6.6-7.8	0	0	0	0
	4-13	10-20	---	6.6-7.8	0	0	0	0
	13-18	10-25	---	7.4-7.8	0	0	0	0
	18-35	10-25	---	7.4-8.4	10-30	0	0	0-3
	35-50	10-20	---	7.9-8.4	15-30	0	0	0-3
	50-60	5.0-15	---	7.9-8.4	10-30	0	0	0-3

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
138:								
Thatcher-----	0-8	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0
	8-29	11-21	---	6.6-8.4	0	0	0.0-2.0	0
	29-58	15-19	---	7.9-9.0	5-15	0	0.0-2.0	0
	58-60	5.0-15	---	7.4-9.0	15-25	0	0.0-2.0	0
Bearhollow-----	0-4	7.0-15	---	7.9-8.4	5-15	0	0	0-5
	4-9	6.0-15	---	7.9-8.4	5-15	0	0	0-5
	9-22	4.0-10	---	7.9-9.0	15-25	0	0	0-13
	22-43	4.0-10	---	7.9-9.0	15-25	0	0	0-13
	43-60	4.0-10	---	7.9-9.0	10-20	0	0	0-13
139:								
Toponce-----	0-3	15-25	---	5.6-6.5	0	0	0	0
	3-14	10-25	---	5.6-6.5	0	0	0	0
	14-60	15-35	---	5.6-6.5	0	0	0	0
Broadhead-----	0-7	10-25	---	5.6-7.3	0	0	0	0
	7-10	10-25	---	6.1-7.3	0	0	0	0
	10-60	15-35	---	6.1-7.3	0-5	0	0	0
140:								
Trenton-----	0-8	20-30	---	7.4-8.4	5-15	0	0.0-2.0	0
	8-32	20-30	---	7.4-8.4	5-15	0	0.0-2.0	0
	32-46	20-40	---	7.4-9.0	5-25	0	2.0-8.0	13-45
	46-60	20-35	---	8.5-9.0	15-35	0	2.0-8.0	5-12
Battle Creek-----	0-8	15-30	---	7.4-7.8	0-5	0	0.0-2.0	0-2
	8-11	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0-2
	11-19	15-40	---	7.9-8.4	0-5	0	0.0-2.0	0-2
	19-40	15-40	---	7.9-8.4	15-30	0	0.0-2.0	0-2
	40-60	15-35	---	7.9-9.0	15-30	0	0.0-2.0	2-8
141:								
Trenton, cool-----	0-8	20-30	---	7.4-8.4	5-15	0	0.0-2.0	0
	8-32	20-30	---	7.4-8.4	5-15	0	0.0-2.0	0
	32-46	20-40	---	7.4-9.0	5-25	0	2.0-8.0	13-45
	46-60	20-35	---	8.5-9.0	15-35	0	2.0-8.0	5-12
Battle Creek, cool---	0-8	15-30	---	7.4-7.8	0-5	0	0.0-2.0	0-2
	8-11	15-35	---	7.4-8.4	0-5	0	0.0-2.0	0-2
	11-19	15-40	---	7.9-8.4	0-5	0	0.0-2.0	0-2
	19-40	15-40	---	7.9-8.4	15-30	0	0.0-2.0	0-2
	40-60	15-35	---	7.9-9.0	15-30	0	0.0-2.0	2-8
142:								
Trenton-----	0-8	20-30	---	7.4-8.4	5-15	0	0.0-2.0	0
	8-32	20-30	---	7.4-8.4	5-15	0	0.0-2.0	0
	32-46	20-40	---	7.4-9.0	5-25	0	2.0-8.0	13-45
	46-60	20-35	---	8.5-9.0	15-35	0	2.0-8.0	5-12
Parleys-----	0-4	10-25	---	6.6-7.8	0	0	0	0
	4-13	10-20	---	6.6-7.8	0	0	0	0
	13-18	10-25	---	7.4-7.8	0	0	0	0
	18-35	10-25	---	7.4-8.4	10-30	0	0	0-3
	35-50	10-20	---	7.9-8.4	15-30	0	0	0-3
	50-60	5.0-15	---	7.9-8.4	10-30	0	0	0-3

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
143:								
Valmar-----	0-9	9.0-20	---	6.1-7.3	0	0	0	0
	9-14	10-20	---	6.6-7.8	0	0	0	0
	14-24	10-15	---	6.6-7.8	0	0	0	0
	24-34	---	---	---	---	---	---	---
Camelback-----	0-3	9.0-20	---	7.4-7.8	0	0	0	0
	3-14	9.0-20	---	7.4-7.8	0	0	0	0
	14-22	10-20	---	7.4-7.8	0	0	0	0
	22-32	15-25	---	7.4-7.8	0	0	0	0
	32-50	10-20	---	7.4-7.8	0	0	0	0
	50-61	6.0-15	---	7.4-7.8	0	0	0	0
Hades-----	0-5	10-20	---	6.6-7.3	0	0	0	0
	5-60	15-25	---	6.6-7.8	0-5	0	0	0
144:								
Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
Bergquist-----	0-5	4.0-15	---	6.6-7.8	0	0	0	0
	5-12	4.0-15	---	6.6-7.8	0	0	0	0
	12-54	1.0-9.0	---	6.6-7.8	0	0	0	0
	54-64	---	---	---	---	---	---	---
Rock outcrop-----	0-60	---	---	---	---	---	---	---
145:								
Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
Yeates Hollow-----	0-8	10-20	---	6.6-7.3	0	0	0	0
	8-16	10-20	---	6.1-7.3	0	0	0	0
	16-19	15-25	---	6.1-7.3	0	0	0	0
	19-29	15-30	---	6.1-7.3	0	0	0	0
	29-60	15-30	---	6.1-7.3	0	0	0	0
Northwater-----	0-12	8.0-17	---	6.6-7.3	0	0	0	0
	12-28	8.0-20	---	6.1-7.3	0	0	0	0
	28-46	10-20	---	6.1-7.3	0	0	0	0
	46-56	---	---	---	---	---	---	---
146:								
Welby-----	0-12	8.0-15	---	7.9-9.0	5-20	0	0.0-2.0	5-15
	12-40	6.0-15	---	7.9-9.0	15-35	0	0.0-2.0	5-20
	40-60	3.0-13	---	7.9-9.0	10-30	0	0.0-2.0	5-20
147:								
Welby-----	0-12	8.0-15	---	7.9-9.0	5-20	0	0.0-2.0	5-15
	12-40	6.0-15	---	7.9-9.0	15-35	0	0.0-2.0	5-20
	40-60	3.0-13	---	7.9-9.0	10-30	0	0.0-2.0	5-20
148:								
Welby, wet-----	0-12	7.0-15	---	7.9-9.0	1-20	0	0.0-2.0	0-10
	12-40	6.0-15	---	7.9-9.0	15-40	0	0.0-2.0	0-10
	40-60	2.0-10	---	7.9-9.0	10-35	0	0.0-2.0	0-10



# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
149:								
Collinston-----	0-8	10-20	---	7.4-9.0	10-20	0	0	0-5
	8-12	10-25	---	7.4-9.0	30-40	0	0.0-2.0	0-5
	12-60	10-15	---	7.4-9.0	15-30	0	0.0-2.0	0-5
Wheelon-----	0-6	10-20	---	7.4-8.4	12-20	0	0.0-2.0	0
	6-60	10-20	---	7.9-9.0	20-35	0	0.0-2.0	0-15
150:								
Wheelon-----	0-6	10-20	---	7.4-8.4	12-20	0	0.0-2.0	0
	6-60	10-20	---	7.9-9.0	20-35	0	0.0-2.0	0-15
Collinston-----	0-8	10-20	---	7.4-9.0	10-20	0	0	0-5
	8-12	10-25	---	7.4-9.0	30-40	0	0.0-2.0	0-5
	12-60	10-15	---	7.4-9.0	15-30	0	0.0-2.0	0-5
151:								
Wheelon-----	0-6	10-20	---	7.4-8.4	12-20	0	0.0-2.0	0
	6-60	10-20	---	7.9-9.0	20-35	0	0.0-2.0	0-15
Collinston-----	0-8	10-20	---	7.4-9.0	10-20	0	0	0-5
	8-12	10-25	---	7.4-9.0	30-40	0	0.0-2.0	0-5
	12-60	10-15	---	7.4-9.0	15-30	0	0.0-2.0	0-5
152:								
Windernot-----	0-6	6.0-15	---	7.9-9.0	5-15	0	0.0-2.0	0-2
	6-18	6.0-15	---	7.9-9.0	10-20	0	0.0-2.0	0-2
	18-23	4.0-15	---	7.9-9.0	15-25	0	0.0-2.0	0-2
	23-60	0.0-5.0	---	7.9-9.0	5-20	0	0.0-2.0	0-2
Lewnot-----	0-10	3.0-10	---	7.9-8.4	5-10	0	0.0-2.0	0
	10-38	4.0-15	---	7.9-9.0	5-10	0	2.0-4.0	0-5
	38-60	1.0-4.0	---	7.9-9.0	1-10	0	2.0-4.0	0-5
Stinkcreek-----	0-11	15-30	---	9.1-11.0	5-15	0	2.0-4.0	13-30
	11-21	10-25	---	9.1-11.0	15-25	0	2.0-4.0	13-30
	21-40	1.0-7.0	---	7.9-11.0	10-20	0	0.0-2.0	0-13
	40-60	1.0-3.0	---	7.9-11.0	1-15	0	0.0-2.0	0-13
153:								
Winn-----	0-13	20-35	---	7.4-8.4	1-10	0	0.0-2.0	0
	13-60	7.0-20	---	7.4-8.4	1-10	0	0.0-2.0	0
154:								
Winwell-----	0-10	15-30	---	7.4-8.4	0	0	0.0-2.0	0-2
	10-22	15-35	---	7.4-8.4	0	0	0.0-2.0	0-2
	22-30	3.0-15	---	7.9-8.4	1-15	0	0.0-2.0	0-2
	30-51	10-20	---	8.5-9.0	20-40	0	0.0-2.0	1-8
	51-60	5.0-15	---	8.5-9.0	15-35	0	0.0-2.0	1-8
155:								
Winwell-----	0-10	15-30	---	7.4-8.4	0	0	0.0-2.0	0-2
	10-22	15-35	---	7.4-8.4	0	0	0.0-2.0	0-2
	22-30	3.0-15	---	7.9-8.4	1-15	0	0.0-2.0	0-2
	30-51	10-20	---	8.5-9.0	20-40	0	0.0-2.0	1-8
	51-60	5.0-15	---	8.5-9.0	15-35	0	0.0-2.0	1-8
Collinston-----	0-8	10-20	---	7.4-9.0	10-20	0	0	0-5
	8-12	10-25	---	7.4-9.0	30-40	0	0.0-2.0	0-5
	12-60	10-15	---	7.4-9.0	15-30	0	0.0-2.0	0-5

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
156:								
Wormcreek-----	0-9	35-40	---	7.4-8.4	1-5	0	0	0
	9-22	20-30	---	7.9-8.4	20-35	0	0	0
	22-48	20-25	---	7.9-9.0	15-30	0	0	0
	48-58	---	---	---	---	---	---	---
Copenhagen-----	0-7	10-20	---	6.6-7.8	0-5	0	0	0
	7-13	10-20	---	6.6-7.8	0-5	0	0	0
	13-23	---	---	---	---	---	---	---
157:								
Wormcreek-----	0-9	35-40	---	7.4-8.4	1-5	0	0	0
	9-22	20-30	---	7.9-8.4	20-35	0	0	0
	22-48	20-25	---	7.9-9.0	15-30	0	0	0
	48-58	---	---	---	---	---	---	---
Lonigan-----	0-8	30-40	---	7.4-8.4	0	0	0	0
	8-11	10-40	---	7.4-8.4	15-35	0	0	0
	11-24	5.0-40	---	7.4-8.4	15-35	0	2.0-4.0	0
	24-34	---	---	---	---	---	---	---
158:								
Wursten-----	0-5	9.0-20	---	7.4-8.4	5-15	0	0	0
	5-17	7.0-15	---	7.9-8.4	15-30	0	0	0
	17-31	5.0-10	---	7.9-9.0	15-30	0	0	0-8
	31-60	4.0-10	---	7.9-9.0	10-30	0	0	5-13
Dirtyhead-----	0-6	6.0-15	---	7.4-8.4	10-25	0	0	0
	6-38	5.0-13	---	7.4-8.4	15-35	0	0	0
	38-48	---	---	---	---	---	---	---
159:								
Xerochrepts-----	0-8	8.0-20	---	7.9-9.0	1-40	0	0	0-5
	8-14	4.0-20	---	7.9-9.0	1-40	0	0	0-5
	14-26	4.0-20	---	7.9-9.0	1-40	0	0	0-5
	26-60	4.0-15	---	7.9-9.0	1-40	0	0	0-5
Wormcreek-----	0-9	35-40	---	7.4-8.4	1-5	0	0	0
	9-22	20-30	---	7.9-8.4	20-35	0	0	0
	22-48	20-25	---	7.9-9.0	15-30	0	0	0
	48-58	---	---	---	---	---	---	---
Xerorthents-----	0-3	4.0-20	---	7.4-9.0	1-40	0	0	0
	3-11	4.0-20	---	7.4-9.0	1-40	0	0.0-2.0	0-3
	11-21	---	---	---	---	---	---	---
160:								
Xerorthents-----	0-3	4.0-20	---	7.4-9.0	1-40	0	0	0
	3-11	4.0-20	---	7.4-9.0	1-40	0	0.0-2.0	0-3
	11-21	---	---	---	---	---	---	---
161:								
Yeates Hollow-----	0-8	10-20	---	6.6-7.3	0	0	0	0
	8-16	10-20	---	6.1-7.3	0	0	0	0
	16-19	15-25	---	6.1-7.3	0	0	0	0
	19-29	15-30	---	6.1-7.3	0	0	0	0
	29-60	15-30	---	6.1-7.3	0	0	0	0

# Soil Survey of Franklin County Area, Idaho

Table 22.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
162:								
Yeates Hollow-----	0-8	10-20	---	6.6-7.3	0	0	0	0
	8-16	10-20	---	6.1-7.3	0	0	0	0
	16-19	15-25	---	6.1-7.3	0	0	0	0
	19-29	15-30	---	6.1-7.3	0	0	0	0
	29-60	15-30	---	6.1-7.3	0	0	0	0
Manila-----	0-7	10-25	---	6.6-7.3	0	0	0	0
	7-33	20-45	---	6.6-7.3	0	0	0	0
	33-50	20-35	---	6.6-7.8	0-15	0	0	0
	50-60	10-25	---	7.4-8.4	10-15	0	0	0
Softback-----	0-1	---	20-30	4.5-5.5	0	0	0	0
	1-4	9.0-20	---	6.1-7.3	0	0	0	0
	4-10	9.0-20	---	6.1-7.3	0	0	0	0
	10-24	8.0-20	---	6.1-7.3	0	0	0	0
	24-30	10-20	---	6.1-7.3	0	0	0	0
	30-39	10-25	---	6.1-7.3	0	0	0	0
	39-63	10-25	---	6.1-7.3	0	0	0	0
163:								
Yeates Hollow-----	0-8	10-20	---	6.6-7.3	0	0	0	0
	8-16	10-20	---	6.1-7.3	0	0	0	0
	16-19	15-25	---	6.1-7.3	0	0	0	0
	19-29	15-30	---	6.1-7.3	0	0	0	0
	29-60	15-30	---	6.1-7.3	0	0	0	0
Vitale-----	0-1	9.0-20	---	6.6-7.8	0	0	0	0
	1-15	10-20	---	6.6-7.8	0	0	0	0
	15-26	15-25	---	6.6-7.8	0	0	0	0
	26-36	---	---	---	---	---	---	---
164:								
Water.								

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features

(See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
1: Airport-----	D	February	---	---	---	---	None	---	Rare
		March	---	---	---	---	None	---	Rare
		April	24-36	>72	---	---	None	---	Rare
		May	24-36	>72	---	---	None	---	Rare
		June	24-36	>72	---	---	None	---	None
		July	24-36	>72	---	---	None	---	None
		August	24-36	>72	---	---	None	---	None
		September	24-36	>72	---	---	None	---	None
2: Ant Flat-----	D	Jan-Dec	---	---	---	---	None	---	None
3: Ant Flat-----	D	Jan-Dec	---	---	---	---	None	---	None
4: Ant Flat-----	D	Jan-Dec	---	---	---	---	None	---	None
5: Ant Flat-----	D	Jan-Dec	---	---	---	---	None	---	None
Oxford-----	D	Jan-Dec	---	---	---	---	None	---	None
6: Ant Flat-----	D	Jan-Dec	---	---	---	---	None	---	None
Oxford-----	D	Jan-Dec	---	---	---	---	None	---	None
7: Arbone-----	B	Jan-Dec	---	---	---	---	None	---	None
8: Banida-----	D	Jan-Dec	---	---	---	---	None	---	None
9: Banida-----	D	Jan-Dec	---	---	---	---	None	---	None
10: Battle Creek-----	D	March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
		July	42-72	>72	---	---	None	---	None
		August	42-72	>72	---	---	None	---	None
11: Battle Creek-----	D	March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
		July	42-72	>72	---	---	None	---	None
		August	42-72	>72	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
12: Battle Creek-----	D	Jan-Dec	---	---	---	---	None	---	None
13: Bear Lake-----	D	February	0	>72	0-6	Brief	Occasional	Brief	Occasional
		March	0	>72	0-6	Brief	Occasional	Brief	Occasional
		April	0	>72	0-6	Brief	Occasional	Brief	Occasional
		May	0	>72	0-6	Brief	Occasional	---	None
		June	0	>72	0-6	Brief	Occasional	---	None
		July	0	>72	0-6	Brief	Occasional	---	None
Chesbrook-----	D	February	6-18	>72	---	---	None	---	Rare
		March	6-18	>72	---	---	None	---	Rare
		April	6-18	>72	---	---	None	---	Rare
		May	6-18	>72	---	---	None	---	Rare
		June	6-18	>72	---	---	None	---	None
		July	6-18	>72	---	---	None	---	None
Picabo-----	C	February	24-48	>72	---	---	None	---	Rare
		March	24-48	>72	---	---	None	---	Rare
		April	24-48	>72	---	---	None	---	Rare
		May	24-48	>72	---	---	None	---	Rare
		June	24-48	>72	---	---	None	---	None
		July	24-48	>72	---	---	None	---	None
14: Bear Lake-----	D	January	---	---	---	---	None	Brief	Frequent
		February	0-18	>72	---	---	None	Brief	Frequent
		March	0-18	>72	---	---	None	Brief	Frequent
		April	0-18	>72	---	---	None	Brief	Frequent
		May	0-18	>72	---	---	None	Brief	Frequent
		June	0-18	>72	---	---	None	Brief	Frequent
Downata-----	D	January	0	>72	0-12	Brief	Frequent	Brief	Frequent
		February	0	>72	0-12	Brief	Frequent	Brief	Frequent
		March	0	>72	0-12	Brief	Frequent	Brief	Frequent
		April	0	>72	0-12	Brief	Frequent	Brief	Frequent
		May	0	>72	0-12	Brief	Frequent	Brief	Frequent
		June	0	>72	0-12	Brief	Frequent	Brief	Frequent
15: Bear Lake-----	D	January	---	---	---	---	None	Brief	Frequent
		February	0-18	>72	---	---	None	Brief	Frequent
		March	0-18	>72	---	---	None	Brief	Frequent
		April	0-18	>72	---	---	None	Brief	Frequent
		May	0-18	>72	---	---	None	Brief	Frequent
		June	0-18	>72	---	---	None	Brief	Frequent
Downata-----	D	January	0	>72	0-12	Brief	Frequent	Brief	Frequent
		February	0	>72	0-12	Brief	Frequent	Brief	Frequent
		March	0	>72	0-12	Brief	Frequent	Brief	Frequent
		April	0	>72	0-12	Brief	Frequent	Brief	Frequent
		May	0	>72	0-12	Brief	Frequent	Brief	Frequent
		June	0	>72	0-12	Brief	Frequent	Brief	Frequent

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
15: Thatcherflats-----	D	February	---	---	---	---	None	---	Rare
		March	36-48	>72	---	---	None	---	Rare
		April	36-48	>72	---	---	None	---	Rare
		May	36-48	>72	---	---	None	---	Rare
		June	36-48	>72	---	---	None	---	None
		July	36-48	>72	---	---	None	---	None
16: Bear Lake-----	D	February	0-18	>72	---	---	None	Brief	Occasional
		March	0-18	>72	---	---	None	Brief	Occasional
		April	0-18	>72	---	---	None	Brief	Occasional
		May	0-18	>72	---	---	None	---	None
		June	0-18	>72	---	---	None	---	None
		July	0-18	>72	---	---	None	---	None
Lago-----	C	February	18-36	>72	---	---	None	---	Rare
		March	18-36	>72	---	---	None	---	Rare
		April	18-36	>72	---	---	None	---	Rare
		May	18-36	>72	---	---	None	---	Rare
		June	18-36	>72	---	---	None	---	None
		July	18-36	>72	---	---	None	---	None
		August	18-36	>72	---	---	None	---	None
17: Bearhollow-----	B	Jan-Dec	---	---	---	---	None	---	None
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
Iphil-----	B	Jan-Dec	---	---	---	---	None	---	None
18: Bergquist-----	B	Jan-Dec	---	---	---	---	None	---	None
Rubble land-----	A	Jan-Dec	---	---	---	---	None	---	None
19: Bergquist-----	B	Jan-Dec	---	---	---	---	None	---	None
Softback-----	B	Jan-Dec	---	---	---	---	None	---	None
20: Bergquist-----	B	Jan-Dec	---	---	---	---	None	---	None
Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
21: Bothwell-----	B	Jan-Dec	---	---	---	---	None	---	None
22: Bothwell-----	B	Jan-Dec	---	---	---	---	None	---	None
23: Bothwell-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Justesen-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			<i>In</i>	<i>In</i>	<i>In</i>				
24:									
Bothwell-----	B	Jan-Dec	---	---	---	---	None	---	None
Thatcher-----	B	Jan-Dec	---	---	---	---	None	---	None
25:									
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None
26:									
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None
27:									
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
Niter-----	C	Jan-Dec	---	---	---	---	None	---	None
28:									
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
Niter-----	C	Jan-Dec	---	---	---	---	None	---	None
29:									
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
Niter-----	C	Jan-Dec	---	---	---	---	None	---	None
30:									
Broadhead-----	C	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Yago-----	C	Jan-Dec	---	---	---	---	None	---	None
31:									
Broadhead-----	C	Jan-Dec	---	---	---	---	None	---	None
Yago-----	C	Jan-Dec	---	---	---	---	None	---	None
32:									
Camelback-----	B	Jan-Dec	---	---	---	---	None	---	None
Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
33:									
Camelback-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Valmar-----	C	Jan-Dec	---	---	---	---	None	---	None
34:									
Cedarhill-----	B	Jan-Dec	---	---	---	---	None	---	None
35:									
Cedarhill-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
35: Ricrest-----	B	Jan-Dec	---	---	---	---	None	---	None
36: Cedarhill-----	B	Jan-Dec	---	---	---	---	None	---	None
Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
Ridgecrest-----	C	Jan-Dec	---	---	---	---	None	---	None
37: Chesbrook-----	D	February	6-18	>72	---	---	None	---	Rare
		March	6-18	>72	---	---	None	---	Rare
		April	6-18	>72	---	---	None	---	Rare
		May	6-18	>72	---	---	None	---	Rare
		June	6-18	>72	---	---	None	---	None
		July	6-18	>72	---	---	None	---	None
Bear Lake-----	D	February	0-18	>72	---	---	None	Brief	Occasional
		March	0-18	>72	---	---	None	Brief	Occasional
		April	0-18	>72	---	---	None	Brief	Occasional
		May	0-18	>72	---	---	None	---	None
		June	0-18	>72	---	---	None	---	None
		July	0-18	>72	---	---	None	---	None
38: Cloudless-----	C	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
39: Cloudless-----	C	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Howcan-----	B	Jan-Dec	---	---	---	---	None	---	None
40: Copenhagen-----	D	Jan-Dec	---	---	---	---	None	---	None
Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
41: Delish-----	C	January	18-30	>72	---	---	None	---	None
		February	18-30	>72	---	---	None	---	Rare
		March	18-30	>72	---	---	None	---	Rare
		April	18-30	>72	---	---	None	---	Rare
		May	18-30	>72	---	---	None	---	Rare
		June	18-30	>72	---	---	None	---	None



# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
41: Cachecan-----	C	January	30-42	>72	---	---	None	---	None
		February	30-42	>72	---	---	None	---	Rare
		March	30-42	>72	---	---	None	---	Rare
		April	30-42	>72	---	---	None	---	Rare
		May	30-42	>72	---	---	None	---	Rare
		June	30-42	>72	---	---	None	---	None
Stinkcreek-----	D	February	0-18	>72	---	---	None	---	Rare
		March	0-18	>72	---	---	None	---	Rare
		April	0-18	>72	---	---	None	---	Rare
		May	0-18	>72	---	---	None	---	Rare
		June	0-18	>72	---	---	None	---	None
42: Downata-----	D	January	0	>72	0-12	Brief	Frequent	Brief	Frequent
		February	0	>72	0-12	Brief	Frequent	Brief	Frequent
		March	0	>72	0-12	Brief	Frequent	Brief	Frequent
		April	0	>72	0-12	Brief	Frequent	Brief	Frequent
		May	0	>72	0-12	Brief	Frequent	Brief	Frequent
		June	0	>72	0-12	Brief	Frequent	Brief	Frequent
43: Dranburn-----	B	Jan-Dec	---	---	---	---	None	---	None
Robin-----	B	Jan-Dec	---	---	---	---	None	---	None
44: Enochville-----	D	February	---	---	---	---	None	Brief	Frequent
		March	---	---	---	---	None	Brief	Frequent
		April	12-24	>72	---	---	None	Brief	Frequent
		May	12-24	>72	---	---	None	Brief	Frequent
		June	12-24	>72	---	---	None	Brief	Frequent
45: Foxol-----	D	Jan-Dec	---	---	---	---	None	---	None
Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
46: Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Camelback-----	B	Jan-Dec	---	---	---	---	None	---	None
Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
47: Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
Camelback-----	B	Jan-Dec	---	---	---	---	None	---	None
48: Haploxerolls-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			<i>In</i>	<i>In</i>	<i>In</i>				
48: Xerorthents-----	D	Jan-Dec	---	---	---	---	None	---	None
49: Hendricks-----	B	Jan-Dec	---	---	---	---	None	---	None
50: Holmes-----	B	February	---	---	---	---	None	---	Rare
		March	---	---	---	---	None	---	Rare
		April	---	---	---	---	None	---	Rare
		May	---	---	---	---	None	---	Rare
51: Hondee-----	B	Jan-Dec	---	---	---	---	None	---	None
52: Hondee-----	B	Jan-Dec	---	---	---	---	None	---	None
53: Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
54: Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
Ricrest-----	B	Jan-Dec	---	---	---	---	None	---	None
55: Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
Sprollo-----	C	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
56: Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
57: Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None
58: Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None
59: Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None
Dirtyhead-----	C	Jan-Dec	---	---	---	---	None	---	None
60: Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None
Harroun-----	D	Jan-Dec	---	---	---	---	None	---	None
Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
61: Huffman-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
61: Wursten-----	B	Jan-Dec	---	---	---	---	None	---	None
62: Iphil-----	B	Jan-Dec	---	---	---	---	None	---	None
Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
63: Ireland-----	C	Jan-Dec	---	---	---	---	None	---	None
Polumar-----	B	Jan-Dec	---	---	---	---	None	---	None
64: Kabear-----	B	Jan-Dec	---	---	---	---	None	---	None
Staberg-----	C	Jan-Dec	---	---	---	---	None	---	None
Copenhagen-----	D	Jan-Dec	---	---	---	---	None	---	None
65: Kabear-----	B	Jan-Dec	---	---	---	---	None	---	None
Staberg-----	C	Jan-Dec	---	---	---	---	None	---	None
Copenhagen-----	D	Jan-Dec	---	---	---	---	None	---	None
66: Kearns-----	B	Jan-Dec	---	---	---	---	None	---	None
67: Kearnsar-----	B	March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
Battle Creek-----	D	March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
		July	42-72	>72	---	---	None	---	None
		August	42-72	>72	---	---	None	---	None
68: Kidman-----	B	Jan-Dec	---	---	---	---	None	---	None
69: Kidman-----	B	Jan-Dec	---	---	---	---	None	---	None
70: Kidman-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
71: Kidman, wet-----	B	January	42-72	>72	---	---	None	---	None
		February	42-72	>72	---	---	None	---	None
		March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
		July	42-72	>72	---	---	None	---	None
		August	42-72	>72	---	---	None	---	None
		September	42-72	>72	---	---	None	---	None
		October	42-72	>72	---	---	None	---	None
		November	42-72	>72	---	---	None	---	None
		December	42-72	>72	---	---	None	---	None
72: Kidman-----	B	Jan-Dec	---	---	---	---	None	---	None
Sterling-----	B	Jan-Dec	---	---	---	---	None	---	None
73: Lando-----	C	February	24-48	>72	---	---	None	---	None
		March	24-48	>72	---	---	None	---	None
		April	24-48	>72	---	---	None	---	None
74: Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
75: Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
76: Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
Broadhead-----	C	Jan-Dec	---	---	---	---	None	---	None
77: Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
Broadhead-----	D	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
78: Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
79: Lanoak-----	B	Jan-Dec	---	---	---	---	None	---	None
Thatcher-----	B	Jan-Dec	---	---	---	---	None	---	None
80: Layton-----	B	April	42-60	>72	---	---	None	---	None
		May	42-60	>72	---	---	None	---	None
		June	42-60	>72	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
81: Layton-----	B	April	42-60	>72	---	---	None	---	None
		May	42-60	>72	---	---	None	---	None
		June	42-60	>72	---	---	None	---	None
82: Lizdale-----	B	Jan-Dec	---	---	---	---	None	---	None
83: Lizdale-----	B	Jan-Dec	---	---	---	---	None	---	None
Searla-----	B	Jan-Dec	---	---	---	---	None	---	None
84: Logan-----	D	January	---	---	---	---	None	---	Rare
		February	---	---	---	---	None	---	Rare
		March	---	---	---	---	None	---	Rare
		April	---	---	---	---	None	---	Rare
		May	0-12	>72	---	---	None	---	Rare
		June	0-12	>72	---	---	None	---	Rare
		July	0-12	>72	---	---	None	---	Rare
		August	0-12	>72	---	---	None	---	Rare
		September	0-12	>72	---	---	None	---	Rare
		October	---	---	---	---	None	---	Rare
		November	---	---	---	---	None	---	Rare
		December	---	---	---	---	None	---	Rare
85: Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
Lizdale-----	B	Jan-Dec	---	---	---	---	None	---	None
86: Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
Ricrest-----	B	Jan-Dec	---	---	---	---	None	---	None
87: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
88: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
89: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
90: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
Bancroft-----	B	Jan-Dec	---	---	---	---	None	---	None
91: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
Broadhead-----	C	Jan-Dec	---	---	---	---	None	---	None
92: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
92: Broadhead-----	C	Jan-Dec	---	---	---	---	None	---	None
93: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
94: Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
Yeates Hollow-----	C	Jan-Dec	---	---	---	---	None	---	None
95: Maplecreek-----	C	January	24-42	>72	---	---	None	---	None
		February	24-42	>72	---	---	None	---	Rare
		March	24-42	>72	---	---	None	---	Rare
		April	24-42	>72	---	---	None	---	Rare
		May	24-42	>72	---	---	None	---	Rare
		June	24-42	>72	---	---	None	---	None
		July	24-42	>72	---	---	None	---	None
96: Maplecreek-----	C	January	24-42	>72	---	---	None	---	None
		February	24-42	>72	---	---	None	---	Rare
		March	24-42	>72	---	---	None	---	Rare
		April	24-42	>72	---	---	None	---	Rare
		May	24-42	>72	---	---	None	---	Rare
		June	24-42	>72	---	---	None	---	None
		July	24-42	>72	---	---	None	---	None
Layton-----	B	April	42-60	>72	---	---	None	---	None
		May	42-60	>72	---	---	None	---	None
		June	42-60	>72	---	---	None	---	None
97: Merkley-----	B	February	48-72	>72	---	---	None	---	None
		March	48-72	>72	---	---	None	---	None
		April	48-72	>72	---	---	None	---	None
		May	48-72	>72	---	---	None	---	None
		June	48-72	>72	---	---	None	---	None
		July	48-72	>72	---	---	None	---	None
Lago-----	C	February	18-36	>72	---	---	None	---	Rare
		March	18-36	>72	---	---	None	---	Rare
		April	18-36	>72	---	---	None	---	Rare
		May	18-36	>72	---	---	None	---	Rare
		June	18-36	>72	---	---	None	---	None
		July	18-36	>72	---	---	None	---	None
		August	18-36	>72	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
97:									
Bear Lake-----	D	February	0-18	>72	---	---	None	Brief	Occasional
		March	0-18	>72	---	---	None	Brief	Occasional
		April	0-18	>72	---	---	None	Brief	Occasional
		May	0-18	>72	---	---	None	---	None
		June	0-18	>72	---	---	None	---	None
		July	0-18	>72	---	---	None	---	None
98:									
Moonlight-----	B	Jan-Dec	---	---	---	---	None	---	None
Camelback-----	B	Jan-Dec	---	---	---	---	None	---	None
99:									
Niter-----	C	Jan-Dec	---	---	---	---	None	---	None
Brifox-----	C	Jan-Dec	---	---	---	---	None	---	None
100:									
Northwater-----	B	Jan-Dec	---	---	---	---	None	---	None
Foxol-----	D	Jan-Dec	---	---	---	---	None	---	None
Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
101:									
Northwater-----	B	Jan-Dec	---	---	---	---	None	---	None
Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
102:									
Northwater-----	B	Jan-Dec	---	---	---	---	None	---	None
Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
103:									
Nyman-----	C	Jan-Dec	---	---	---	---	None	---	None
Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
Copenhagen-----	D	Jan-Dec	---	---	---	---	None	---	None
104:									
Oxford-----	D	Jan-Dec	---	---	---	---	None	---	None
Banida-----	D	Jan-Dec	---	---	---	---	None	---	None
105:									
Oxford-----	D	Jan-Dec	---	---	---	---	None	---	None
Banida-----	D	Jan-Dec	---	---	---	---	None	---	None
106:									
Oxford-----	D	Jan-Dec	---	---	---	---	None	---	None
Banida-----	D	Jan-Dec	---	---	---	---	None	---	None
107:									
Oxford-----	D	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
107: Gullied land-----	A	Jan-Dec	---	---	---	---	None	---	None
108: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
109: Parleys-----	B	Jan-Dec	---	---	---	---	None	---	None
110: Parleys-----	B	Jan-Dec	---	---	---	---	None	---	None
111: Parleys, wet-----	B	January	48-72	>72	---	---	None	---	None
		February	48-72	>72	---	---	None	---	Rare
		March	48-72	>72	---	---	None	---	Rare
		April	48-72	>72	---	---	None	---	Rare
		May	48-72	>72	---	---	None	---	Rare
		June	48-72	>72	---	---	None	---	None
		July	48-72	>72	---	---	None	---	None
		August	48-72	>72	---	---	None	---	None
		September	48-72	>72	---	---	None	---	None
		October	48-72	>72	---	---	None	---	None
		November	48-72	>72	---	---	None	---	None
		December	48-72	>72	---	---	None	---	None
112: Pavohroo-----	B	Jan-Dec	---	---	---	---	None	---	None
Sedgway-----	B	Jan-Dec	---	---	---	---	None	---	None
Toponce-----	C	Jan-Dec	---	---	---	---	None	---	None
113: Picabo-----	C	February	24-48	>72	---	---	None	---	Rare
		March	24-48	>72	---	---	None	---	Rare
		April	24-48	>72	---	---	None	---	Rare
		May	24-48	>72	---	---	None	---	Rare
		June	24-48	>72	---	---	None	---	None
		July	24-48	>72	---	---	None	---	None
Thatcherflats-----	D	February	---	---	---	---	None	---	Rare
		March	36-48	>72	---	---	None	---	Rare
		April	36-48	>72	---	---	None	---	Rare
		May	36-48	>72	---	---	None	---	Rare
		June	36-48	>72	---	---	None	---	None
		July	36-48	>72	---	---	None	---	None
114: Pits, gravel-----	A	Jan-Dec	---	---	---	---	None	---	None
115: Pollynot-----	B	Jan-Dec	---	---	---	---	None	---	None
116: Pollynot-----	B	Jan-Dec	---	---	---	---	None	---	None



# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			<i>In</i>	<i>In</i>	<i>In</i>				
117: Pollynot-----	B	Jan-Dec	---	---	---	---	None	---	None
118: Pollynot-----	B	Jan-Dec	---	---	---	---	None	---	None
119: Polumar-----	B	Jan-Dec	---	---	---	---	None	---	None
Ireland-----	C	Jan-Dec	---	---	---	---	None	---	None
120: Polumar-----	B	Jan-Dec	---	---	---	---	None	---	None
Sprollo-----	C	Jan-Dec	---	---	---	---	None	---	None
Ireland-----	C	Jan-Dec	---	---	---	---	None	---	None
121: Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
122: Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
123: Preston-----	A	Jan-Dec	---	---	---	---	None	---	None
124: Preston-----	A	Jan-Dec	---	---	---	---	None	---	None
125: Preston-----	A	Jan-Dec	---	---	---	---	None	---	None
126: Preston-----	A	Jan-Dec	---	---	---	---	None	---	None
Xerorthents-----	D	Jan-Dec	---	---	---	---	None	---	None
127: Ricrest-----	B	Jan-Dec	---	---	---	---	None	---	None
128: Sanyon-----	D	Jan-Dec	---	---	---	---	None	---	None
Staberg-----	C	Jan-Dec	---	---	---	---	None	---	None
Kabear-----	B	Jan-Dec	---	---	---	---	None	---	None
129: Smidale-----	B	Jan-Dec	---	---	---	---	None	---	None
130: Smidale-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			<i>In</i>	<i>In</i>	<i>In</i>				
130: Staberg-----	C	Jan-Dec	---	---	---	---	None	---	None
131: Sprollo-----	C	Jan-Dec	---	---	---	---	None	---	None
Hondoho-----	B	Jan-Dec	---	---	---	---	None	---	None
132: Sprollo-----	C	Jan-Dec	---	---	---	---	None	---	None
Hymas-----	D	Jan-Dec	---	---	---	---	None	---	None
133: Sterling-----	B	Jan-Dec	---	---	---	---	None	---	None
134: Sterling-----	B	Jan-Dec	---	---	---	---	None	---	None
135: Sterling-----	B	Jan-Dec	---	---	---	---	None	---	None
136: Sterling-----	B	Jan-Dec	---	---	---	---	None	---	None
137: Sterling-----	B	Jan-Dec	---	---	---	---	None	---	None
Parleys-----	B	Jan-Dec	---	---	---	---	None	---	None
138: Thatcher-----	B	Jan-Dec	---	---	---	---	None	---	None
Bearhollow-----	B	Jan-Dec	---	---	---	---	None	---	None
139: Toponce-----	C	Jan-Dec	---	---	---	---	None	---	None
Broadhead-----	C	Jan-Dec	---	---	---	---	None	---	None
140: Trenton-----	C	March	30-42	>72	---	---	None	---	None
		April	30-42	>72	---	---	None	---	None
		May	30-42	>72	---	---	None	---	None
		June	30-42	>72	---	---	None	---	None
		July	30-42	>72	---	---	None	---	None
		August	30-42	>72	---	---	None	---	None
Battle Creek-----	D	March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
		July	42-72	>72	---	---	None	---	None
		August	42-72	>72	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
141: Trenton, cool-----	C	March	30-42	>72	---	---	None	---	None
		April	30-42	>72	---	---	None	---	None
		May	30-42	>72	---	---	None	---	None
		June	30-42	>72	---	---	None	---	None
		July	30-42	>72	---	---	None	---	None
		August	30-42	>72	---	---	None	---	None
Battle Creek, cool--	D	March	42-72	>72	---	---	None	---	None
		April	42-72	>72	---	---	None	---	None
		May	42-72	>72	---	---	None	---	None
		June	42-72	>72	---	---	None	---	None
		July	42-72	>72	---	---	None	---	None
		August	42-72	>72	---	---	None	---	None
142: Trenton-----	C	March	30-42	>72	---	---	None	---	None
		April	30-42	>72	---	---	None	---	None
		May	30-42	>72	---	---	None	---	None
		June	30-42	>72	---	---	None	---	None
		July	30-42	>72	---	---	None	---	None
		August	30-42	>72	---	---	None	---	None
Parleys-----	B	January	48-72	>72	---	---	None	---	None
		February	48-72	>72	---	---	None	---	Rare
		March	48-72	>72	---	---	None	---	Rare
		April	48-72	>72	---	---	None	---	Rare
		May	48-72	>72	---	---	None	---	Rare
		June	48-72	>72	---	---	None	---	None
		July	48-72	>72	---	---	None	---	None
		August	48-72	>72	---	---	None	---	None
		September	48-72	>72	---	---	None	---	None
		October	48-72	>72	---	---	None	---	None
		November	48-72	>72	---	---	None	---	None
		December	48-72	>72	---	---	None	---	None
143: Valmar-----	C	Jan-Dec	---	---	---	---	None	---	None
Camelback-----	B	Jan-Dec	---	---	---	---	None	---	None
Hades-----	B	Jan-Dec	---	---	---	---	None	---	None
144: Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
Bergquist-----	B	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	D	Jan-Dec	---	---	---	---	None	---	None
145: Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
Yeates Hollow-----	C	Jan-Dec	---	---	---	---	None	---	None
Northwater-----	B	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
146: Welby-----	B	Jan-Dec	---	---	---	---	None	---	None
147: Welby-----	B	Jan-Dec	---	---	---	---	None	---	None
148: Welby, wet-----	B	January	48-72	>72	---	---	None	---	None
		February	48-72	>72	---	---	None	---	None
		March	48-72	>72	---	---	None	---	None
		April	48-72	>72	---	---	None	---	None
		May	48-72	>72	---	---	None	---	None
		June	48-72	>72	---	---	None	---	None
		July	48-72	>72	---	---	None	---	None
		August	48-72	>72	---	---	None	---	None
		September	48-72	>72	---	---	None	---	None
		October	48-72	>72	---	---	None	---	None
		November	48-72	>72	---	---	None	---	None
		December	48-72	>72	---	---	None	---	None
149: Collinston-----	B	Jan-Dec	---	---	---	---	None	---	None
Wheelon-----	B	Jan-Dec	---	---	---	---	None	---	None
150: Wheelon-----	B	Jan-Dec	---	---	---	---	None	---	None
Collinston-----	B	Jan-Dec	---	---	---	---	None	---	None
151: Wheelon-----	B	Jan-Dec	---	---	---	---	None	---	None
Collinston-----	B	Jan-Dec	---	---	---	---	None	---	None
152: Windernot-----	B	February	---	---	---	---	None	---	Rare
		March	54-72	>72	---	---	None	---	Rare
		April	54-72	>72	---	---	None	---	Rare
		May	54-72	>72	---	---	None	---	Rare
		June	54-72	>72	---	---	None	---	None
Lewnot-----	C	January	24-42	>72	---	---	None	---	None
		February	24-42	>72	---	---	None	---	Rare
		March	24-42	>72	---	---	None	---	Rare
		April	24-42	>72	---	---	None	---	Rare
		May	24-42	>72	---	---	None	---	Rare
		June	24-42	>72	---	---	None	---	None
Stinkcreek-----	D	February	0-18	>72	---	---	None	---	Rare
		March	0-18	>72	---	---	None	---	Rare
		April	0-18	>72	---	---	None	---	Rare
		May	0-18	>72	---	---	None	---	Rare
		June	0-18	>72	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 23.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Month	Water table		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			In	In	In				
153: Winn-----	C	February	---	---	---	---	None	---	Rare
		March	---	---	---	---	None	---	Rare
		April	30-42	>72	---	---	None	---	Rare
		May	30-42	>72	---	---	None	---	Rare
		June	30-42	>72	---	---	None	---	None
		July	30-42	>72	---	---	None	---	None
		August	30-42	>72	---	---	None	---	None
		September	30-42	>72	---	---	None	---	None
154: Winwell-----	C	Jan-Dec	---	---	---	---	None	---	None
155: Winwell-----	C	Jan-Dec	---	---	---	---	None	---	None
Collinston-----	B	Jan-Dec	---	---	---	---	None	---	None
156: Wormcreek-----	B	Jan-Dec	---	---	---	---	None	---	None
Copenhagen-----	D	Jan-Dec	---	---	---	---	None	---	None
157: Wormcreek-----	B	Jan-Dec	---	---	---	---	None	---	None
Lonigan-----	B	Jan-Dec	---	---	---	---	None	---	None
158: Wursten-----	B	Jan-Dec	---	---	---	---	None	---	None
Dirtyhead-----	C	Jan-Dec	---	---	---	---	None	---	None
159: Xerochrepts-----	B	Jan-Dec	---	---	---	---	None	---	None
Wormcreek-----	B	Jan-Dec	---	---	---	---	None	---	None
Xerorthents-----	D	Jan-Dec	---	---	---	---	None	---	None
160: Xerorthents-----	D	Jan-Dec	---	---	---	---	None	---	None
161: Yeates Hollow-----	C	Jan-Dec	---	---	---	---	None	---	None
162: Yeates Hollow-----	C	Jan-Dec	---	---	---	---	None	---	None
Manila-----	C	Jan-Dec	---	---	---	---	None	---	None
Softback-----	B	Jan-Dec	---	---	---	---	None	---	None
163: Yeates Hollow-----	C	Jan-Dec	---	---	---	---	None	---	None
Vitale-----	C	Jan-Dec	---	---	---	---	None	---	None
164: Water-----	---	Jan-Dec	---	---	---	---	None	---	None

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
1: Airport-----	---	---	---	---	High	High	High
2: Ant Flat-----	---	---	---	---	Moderate	High	Low
3: Ant Flat-----	---	---	---	---	Moderate	High	Low
4: Ant Flat-----	---	---	---	---	Moderate	High	Low
5: Ant Flat-----	---	---	---	---	Moderate	High	Low
Oxford-----	---	---	---	---	Moderate	High	High
6: Ant Flat-----	---	---	---	---	Moderate	High	Low
Oxford-----	---	---	---	---	Moderate	High	High
7: Arbone-----	---	---	---	---	Moderate	High	Low
8: Banida-----	---	---	---	---	Moderate	High	High
9: Banida-----	---	---	---	---	Moderate	High	High
10: Battle Creek-----	---	---	---	---	High	High	Low
11: Battle Creek-----	---	---	---	---	High	High	Low
12: Battle Creek-----	---	---	---	---	Moderate	High	Low
13: Bear Lake-----	---	---	---	---	High	High	Moderate
Chesbrook-----	---	---	---	---	High	High	Low
Picabo-----	---	---	---	---	High	High	Moderate
14: Bear Lake-----	---	---	---	---	High	High	Low
Downata-----	---	---	---	---	High	High	Low
15: Bear Lake-----	---	---	---	---	High	High	Low
Downata-----	---	---	---	---	High	High	Low
Thatcherflats-----	---	---	---	---	High	High	High

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
16: Bear Lake-----	---	---	---	---	High	High	Moderate
Lago-----	---	---	---	---	High	High	Low
17: Bearhollow-----	---	---	---	---	Moderate	High	Low
Brifox-----	---	---	---	---	Moderate	High	High
Iphil-----	---	---	---	---	High	High	Low
18: Bergquist-----	Lithic bedrock	40-60	---	Indurated	Moderate	Moderate	Low
Rubble land.							
19: Bergquist-----	Lithic bedrock	40-60	---	Indurated	Moderate	Moderate	Low
Softback-----	---	---	---	---	Moderate	Moderate	Low
20: Bergquist-----	Lithic bedrock	40-60	---	Indurated	Moderate	Moderate	Low
Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
21: Bothwell-----	---	---	---	---	High	Moderate	Low
22: Bothwell-----	---	---	---	---	High	Moderate	Low
23: Bothwell-----	---	---	---	---	High	Moderate	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Justesen-----	---	---	---	---	Moderate	High	Low
24: Bothwell-----	---	---	---	---	High	Moderate	Low
Thatcher-----	---	---	---	---	High	High	Moderate
25: Brifox-----	---	---	---	---	Moderate	High	High
Huffman-----	---	---	---	---	High	High	Low
26: Brifox-----	---	---	---	---	Moderate	High	High
Huffman-----	---	---	---	---	High	High	Low
27: Brifox-----	---	---	---	---	Moderate	High	High
Niter-----	---	---	---	---	Moderate	High	High
28: Brifox-----	---	---	---	---	Moderate	High	High

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
28: Niter-----	---	---	---	---	Moderate	High	High
29: Brifox-----	---	---	---	---	Moderate	High	High
Niter-----	---	---	---	---	Moderate	High	High
30: Broadhead-----	---	---	---	---	Moderate	Moderate	Moderate
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Yago-----	---	---	---	---	Moderate	Moderate	Moderate
31: Broadhead-----	---	---	---	---	Moderate	Moderate	Moderate
Yago-----	---	---	---	---	Moderate	Moderate	Moderate
32: Camelback-----	---	---	---	---	Moderate	Moderate	Low
Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
33: Camelback-----	---	---	---	---	Moderate	Moderate	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Valmar-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
34: Cedarhill-----	---	---	---	---	Moderate	High	Low
35: Cedarhill-----	---	---	---	---	Moderate	High	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Ricrest-----	---	---	---	---	Moderate	High	Low
36: Cedarhill-----	---	---	---	---	Moderate	High	Low
Hondoho-----	---	---	---	---	Moderate	High	Low
Ridgecrest-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
37: Chesbrook-----	---	---	---	---	High	High	Low
Bear Lake-----	---	---	---	---	High	High	Moderate
38: Cloudless-----	---	---	---	---	Moderate	Moderate	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
39: Cloudless-----	---	---	---	---	Moderate	Moderate	Low



# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
39:							
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Howcan-----	---	---	---	---	Moderate	Moderate	Low
40:							
Copenhagen-----	Lithic bedrock	10-20	---	Very strongly cemented	Moderate	Moderate	Low
Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
Manila-----	---	---	---	---	Moderate	Moderate	Low
41:							
Delish-----	---	---	---	---	High	High	High
Cachecan-----	---	---	---	---	High	High	High
Stinkcreek-----	---	---	---	---	High	High	Low
42:							
Downata-----	---	---	---	---	High	High	Low
43:							
Dranburn-----	---	---	---	---	Moderate	Moderate	Low
Robin-----	---	---	---	---	High	Moderate	Low
44:							
Enochville-----	---	---	---	---	High	High	Low
45:							
Foxol-----	Lithic bedrock	14-20	---	Indurated	Moderate	Moderate	Moderate
Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
46:							
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Camelback-----	---	---	---	---	Moderate	Moderate	Low
Hondoho-----	---	---	---	---	Moderate	High	Low
47:							
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Lanoak-----	---	---	---	---	High	Moderate	Low
Camelback-----	---	---	---	---	Moderate	Moderate	Low
48:							
Haploxerolls-----	---	---	---	---	Moderate	High	Low
Xerorthents-----	Paralithic bedrock	10-60	---	Moderately cemented	Moderate	High	Low
49:							
Hendricks-----	---	---	---	---	High	High	Moderate
50:							
Holmes-----	---	---	---	---	Moderate	Moderate	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
51: Hondee-----	---	---	---	---	Moderate	High	Low
52: Hondee-----	---	---	---	---	Moderate	High	Low
53: Hondoho-----	---	---	---	---	Moderate	High	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
54: Hondoho-----	---	---	---	---	Moderate	Moderate	Low
Ricrest-----	---	---	---	---	Moderate	High	Low
55: Hondoho-----	---	---	---	---	Moderate	Moderate	Low
Sprollo-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
56: Hondoho-----	---	---	---	---	Moderate	Moderate	Low
Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
57: Huffman-----	---	---	---	---	High	High	Low
58: Huffman-----	---	---	---	---	High	High	Low
59: Huffman-----	---	---	---	---	High	High	Low
Dirtyhead-----	Paralithic bedrock	25-40	---	Moderately cemented	Moderate	High	Low
60: Huffman-----	---	---	---	---	High	High	Low
Harroun-----	Duripan	10-20	2-15	Strongly cemented	Moderate	High	Low
Lanoak-----	---	---	---	---	High	Moderate	Low
61: Huffman-----	---	---	---	---	High	High	Low
Wursten-----	---	---	---	---	Moderate	High	Low
62: Iphil-----	---	---	---	---	High	High	Low
Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
63: Ireland-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
Polumar-----	Lithic bedrock	40-60	---	Indurated	Moderate	High	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
64:							
Kabear-----	---	---	---	---	Moderate	Moderate	Low
Staberg-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	Moderate	Low
Copenhagen-----	Lithic bedrock	10-20	---	Very strongly cemented	Moderate	Moderate	Low
65:							
Kabear-----	---	---	---	---	Moderate	Moderate	Low
Staberg-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	Moderate	Low
Copenhagen-----	Lithic bedrock	10-20	---	Very strongly cemented	Moderate	Moderate	Low
66:							
Kearns-----	---	---	---	---	High	High	Low
67:							
Kearnsar-----	---	---	---	---	High	High	Low
Battle Creek-----	---	---	---	---	High	High	Low
68:							
Kidman-----	---	---	---	---	Moderate	High	Low
69:							
Kidman-----	---	---	---	---	Moderate	High	Low
70:							
Kidman-----	---	---	---	---	Moderate	High	Low
71:							
Kidman, wet-----	---	---	---	---	High	High	Low
72:							
Kidman-----	---	---	---	---	Moderate	High	Low
Sterling-----	---	---	---	---	Moderate	High	Low
73:							
Lando-----	---	---	---	---	High	High	Low
74:							
Lanoak-----	---	---	---	---	High	Moderate	Low
75:							
Lanoak-----	---	---	---	---	High	Moderate	Low
76:							
Lanoak-----	---	---	---	---	High	Moderate	Low
Broadhead-----	---	---	---	---	Moderate	Moderate	Moderate
77:							
Lanoak-----	---	---	---	---	High	Moderate	Low
Broadhead-----	---	---	---	---	Moderate	Moderate	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
77: Hades-----	---	---	---	---	Moderate	Moderate	Moderate
78: Lanoak-----	---	---	---	---	High	Moderate	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
79: Lanoak-----	---	---	---	---	High	Moderate	Low
Thatcher-----	---	---	---	---	High	High	Moderate
80: Layton-----	---	---	---	---	Low	High	Low
81: Layton-----	---	---	---	---	Low	High	Low
82: Lizdale-----	---	---	---	---	Moderate	High	Low
83: Lizdale-----	---	---	---	---	Moderate	High	Low
Searla-----	---	---	---	---	Moderate	High	Low
84: Logan-----	---	---	---	---	High	High	Moderate
85: Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
Lizdale-----	---	---	---	---	Moderate	High	Low
86: Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
Ricrest-----	---	---	---	---	Moderate	High	Low
87: Manila-----	---	---	---	---	Moderate	Moderate	Low
88: Manila-----	---	---	---	---	Moderate	Moderate	Low
89: Manila-----	---	---	---	---	Moderate	Moderate	Low
90: Manila-----	---	---	---	---	Moderate	Moderate	Low
Bancroft-----	---	---	---	---	High	High	Low
91: Manila-----	---	---	---	---	Moderate	Moderate	Low
Broadhead-----	---	---	---	---	Moderate	Moderate	Moderate

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
92: Manila-----	---	---	---	---	Moderate	Moderate	Low
Broadhead-----	---	---	---	---	Moderate	Moderate	Moderate
93: Manila-----	---	---	---	---	Moderate	Moderate	Low
Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
94: Manila-----	---	---	---	---	Moderate	Moderate	Low
Yeates Hollow-----	---	---	---	---	Moderate	High	Low
95: Maplecreek-----	---	---	---	---	High	High	Low
96: Maplecreek-----	---	---	---	---	High	High	Low
Layton-----	---	---	---	---	Low	High	Low
97: Merkley-----	---	---	---	---	High	High	Low
Lago-----	---	---	---	---	High	High	Low
Bear Lake-----	---	---	---	---	High	High	Moderate
98: Moonlight-----	---	---	---	---	High	Moderate	Moderate
Camelback-----	---	---	---	---	Moderate	Moderate	Low
99: Niter-----	---	---	---	---	Moderate	High	High
Brifox-----	---	---	---	---	Moderate	High	High
100: Northwater-----	Lithic bedrock	40-60	---	Indurated	Moderate	High	Low
Foxol-----	Lithic bedrock	14-20	---	Indurated	Moderate	Moderate	Moderate
Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
101: Northwater-----	---	---	---	---	Moderate	Moderate	Low
Povey-----	---	---	---	---	Moderate	Moderate	Low
102: Northwater-----	---	---	---	---	Moderate	Moderate	Low
Povey-----	---	---	---	---	Moderate	Moderate	Low
103: Nyman-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
103: Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
Copenhagen-----	Lithic bedrock	10-20	---	Very strongly cemented	Moderate	Moderate	Low
104: Oxford-----	---	---	---	---	Moderate	High	High
Banida-----	---	---	---	---	Moderate	High	High
105: Oxford-----	---	---	---	---	Moderate	High	High
Banida-----	---	---	---	---	Moderate	High	High
106: Oxford-----	---	---	---	---	Moderate	High	High
Banida-----	---	---	---	---	Moderate	High	High
107: Oxford-----	---	---	---	---	Moderate	High	High
Gullied land.							
108: Parkay-----	Lithic bedrock	40-60	---	Indurated	Moderate	Moderate	Low
Povey-----	---	---	---	---	Moderate	Moderate	Low
109: Parleys-----	---	---	---	---	High	High	Low
110: Parleys-----	---	---	---	---	High	High	Low
111: Parleys, wet-----	---	---	---	---	High	Moderate	Low
112: Pavohroo-----	---	---	---	---	Moderate	High	Low
Sedgway-----	---	---	---	---	Moderate	Moderate	Moderate
Toponce-----	---	---	---	---	Moderate	Moderate	Moderate
113: Picabo-----	---	---	---	---	High	High	Moderate
Thatcherflats-----	---	---	---	---	High	High	High
114: Pits, gravel.							
115: Pollynot-----	---	---	---	---	Moderate	High	Low
116: Pollynot-----	---	---	---	---	Moderate	High	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
117: Pollynnot-----	---	---	---	---	Moderate	High	Low
118: Pollynnot-----	---	---	---	---	Moderate	High	Low
119: Polumar-----	Lithic bedrock	40-60	---	Indurated	Moderate	High	Low
Ireland-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
120: Polumar-----	Lithic bedrock	40-60	---	Indurated	Moderate	High	Low
Sprollo-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
Ireland-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
121: Povey-----	---	---	---	---	Moderate	Moderate	Low
Hades-----	---	---	---	---	Moderate	Moderate	Moderate
Hondoho-----	---	---	---	---	Moderate	Moderate	Low
122: Povey-----	---	---	---	---	Moderate	Moderate	Low
Parkay-----	Lithic bedrock	40-60	---	Indurated	Moderate	Moderate	Low
123: Preston-----	---	---	---	---	Low	High	Moderate
124: Preston-----	---	---	---	---	Low	High	Moderate
125: Preston-----	---	---	---	---	Low	High	Moderate
126: Preston-----	---	---	---	---	Low	High	Moderate
Xerorthents-----	Paralithic bedrock	10-60	---	Moderately cemented	Moderate	High	Low
127: Ricrest-----	---	---	---	---	Moderate	High	Low
128: Sanyon-----	Paralithic bedrock	10-20	---	Moderately cemented	Moderate	High	Low
Staberg-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	Moderate	Low
Kabear-----	---	---	---	---	Moderate	Moderate	Low
129: Smidale-----	---	---	---	---	Moderate	Moderate	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
130: Smidale-----	---	---	---	---	Moderate	Moderate	Low
Staberg-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	Moderate	Low
131: Sprollo-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
Hondoho-----	---	---	---	---	Moderate	Moderate	Low
132: Sprollo-----	Lithic bedrock	20-40	---	Indurated	Moderate	High	Low
Hymas-----	Lithic bedrock	10-20	---	Indurated	Moderate	High	Low
133: Sterling-----	---	---	---	---	Moderate	High	Low
134: Sterling-----	---	---	---	---	Moderate	High	Low
135: Sterling-----	---	---	---	---	Moderate	High	Moderate
136: Sterling-----	---	---	---	---	Moderate	High	Low
137: Sterling-----	---	---	---	---	Moderate	High	Low
Parleys-----	---	---	---	---	High	High	Low
138: Thatcher-----	---	---	---	---	High	High	Moderate
Bearhollow-----	---	---	---	---	Moderate	High	Low
139: Toponce-----	---	---	---	---	Moderate	Moderate	Moderate
Broadhead-----	---	---	---	---	Moderate	Moderate	Moderate
140: Trenton-----	---	---	---	---	Moderate	High	High
Battle Creek-----	---	---	---	---	High	High	Low
141: Trenton, cool-----	---	---	---	---	Moderate	High	High
Battle Creek, cool-----	---	---	---	---	High	High	Low
142: Trenton-----	---	---	---	---	Moderate	High	High
Parleys-----	---	---	---	---	High	Moderate	Low
143: Valmar-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
Camelback-----	---	---	---	---	Moderate	Moderate	Low



# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
143: Hades-----	---	---	---	---	Moderate	Moderate	Moderate
144: Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
Bergquist-----	Lithic bedrock	40-60	---	Indurated	Moderate	Moderate	Low
Rock outcrop-----	Lithic bedrock	0	---	Indurated	---	---	---
145: Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
Yeates Hollow-----	---	---	---	---	Moderate	High	Low
Northwater-----	Lithic bedrock	40-60	---	Indurated	Moderate	High	Low
146: Welby-----	---	---	---	---	Moderate	High	Low
147: Welby-----	---	---	---	---	Moderate	High	Low
148: Welby, wet-----	---	---	---	---	High	High	Low
149: Collinston-----	---	---	---	---	High	High	Low
Wheelon-----	---	---	---	---	High	High	Low
150: Wheelon-----	---	---	---	---	High	High	Low
Collinston-----	---	---	---	---	High	High	Low
151: Wheelon-----	---	---	---	---	High	High	Low
Collinston-----	---	---	---	---	High	High	Low
152: Windernot-----	---	---	---	---	Low	High	Low
Lewnot-----	---	---	---	---	Moderate	High	Low
Stinkcreek-----	---	---	---	---	High	High	Low
153: Winn-----	---	---	---	---	High	High	Moderate
154: Winwell-----	---	---	---	---	Moderate	High	Moderate
155: Winwell-----	---	---	---	---	Moderate	High	Moderate
Collinston-----	---	---	---	---	High	High	Low
156: Wormcreek-----	Paralithic bedrock	40-60	---	Moderately cemented	Moderate	High	Low

# Soil Survey of Franklin County Area, Idaho

Table 24.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated steel	Concrete
		In	In				
156: Copenhagen-----	Lithic bedrock	10-20	---	Very strongly cemented	Moderate	Moderate	Low
157: Wormcreek-----	Paralithic bedrock	40-60	---	Moderately cemented	Moderate	High	Low
Lonigan-----	Paralithic bedrock	20-40	---	Moderately cemented	Moderate	High	Low
158: Wursten-----	---	---	---	---	Moderate	High	Low
Dirtyhead-----	Paralithic bedrock	25-40	---	Moderately cemented	Moderate	High	Low
159: Xerochrepts-----	---	---	---	---	Moderate	High	Low
Wormcreek-----	Paralithic bedrock	40-60	---	Moderately cemented	Moderate	High	Low
Xerorthents-----	Paralithic bedrock	10-60	---	Moderately cemented	Moderate	High	Low
160: Xerorthents-----	Paralithic bedrock	10-60	---	Moderately cemented	Moderate	High	Low
161: Yeates Hollow-----	---	---	---	---	Moderate	High	Low
162: Yeates Hollow-----	---	---	---	---	Moderate	High	Low
Manila-----	---	---	---	---	Moderate	Moderate	Low
Softback-----	---	---	---	---	Moderate	Moderate	Low
163: Yeates Hollow-----	---	---	---	---	Moderate	High	Low
Vitale-----	Lithic bedrock	20-40	---	Indurated	Moderate	Moderate	Low
164: Water.							

# Soil Survey of Franklin County Area, Idaho

Table 25.--Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series.)

Soil name	Family or higher taxonomic class
Airport-----	Fine-silty, mixed, mesic Aquic Natrixerolls
Ant Flat-----	Fine, montmorillonitic, frigid Calcic Argixerolls
Arbone-----	Coarse-loamy, mixed, frigid Calcic Haploxerolls
Bancroft-----	Fine-silty, mixed, frigid Calcic Argixerolls
Banida-----	Fine, montmorillonitic, frigid Vertic Xerochrepts
Battle Creek-----	Fine, mixed, mesic Vertic Argixerolls
*Battle Creek-----	Fine, mixed, frigid Vertic Argixerolls
Bear Lake-----	Fine-silty, frigid Typic Calciaquolls
Bearhollow-----	Coarse-loamy, mixed, frigid Calcixerollic Xerochrepts
Bergquist-----	Loamy-skeletal, mixed, frigid Typic Haploxerolls
Bothwell-----	Fine-silty, mixed, frigid Pachic Argixerolls
Brifox-----	Fine, montmorillonitic, frigid Chromic Calcixererts
*Broadhead-----	Fine, montmorillonitic, frigid Vertic Argixerolls
Cachecan-----	Fine-silty, mixed, mesic Fluventic Xerochrepts
Camelback-----	Loamy-skeletal, mixed, frigid Pachic Argixerolls
Cedarhill-----	Loamy-skeletal, mixed, frigid Typic Calcixerolls
Chesbrook-----	Fine-silty, frigid Typic Calciaquolls
Cloudless-----	Fine-loamy, mixed, frigid Typic Argixerolls
Collinston-----	Fine-silty, mixed, mesic Typic Calcixerolls
Copenhagen-----	Ashy-skeletal, frigid Lithic Haploxerolls
Delish-----	Coarse-loamy, mixed (calcareous), mesic Oxyaquic Xerofluvents
Dirtyhead-----	Loamy-skeletal, mixed, frigid Calcixerollic Xerochrepts
Downata-----	Fine-silty, mixed (calcareous), frigid Cumulic Endoaquolls
Dranburn-----	Fine-loamy, mixed Argic Pachic Cryoborolls
Enochville-----	Fine-silty, mixed Cumulic Cryaquolls
Foxol-----	Loamy-skeletal, mixed, frigid Lithic Haploxerolls
Hades-----	Fine-loamy, mixed, frigid Pachic Argixerolls
Haploxerolls-----	Haploxerolls
*Harroun-----	Loamy-skeletal, mixed, frigid, shallow Typic Durixerolls
Hendricks-----	Fine-silty, mixed, mesic Pachic Argixerolls
Holmes-----	Loamy-skeletal, mixed, frigid Typic Argixerolls
Hondee-----	Loamy-skeletal, mixed, mesic Calcic Haploxerolls
Hondoho-----	Loamy-skeletal, mixed, frigid Calcic Haploxerolls
Howcan-----	Loamy-skeletal, mixed, frigid Typic Argixerolls
Huffman-----	Fine-silty, mixed, frigid Calcic Haploxerolls
Hymas-----	Loamy-skeletal, carbonatic, frigid Lithic Haploxerolls
Iphil-----	Coarse-silty, mixed, frigid Typic Calcixerolls
Ireland-----	Loamy-skeletal, mixed, frigid Calcic Haploxerolls
Justesen-----	Fine-loamy, mixed, frigid Calcic Argixerolls
Kabear-----	Coarse-loamy, mixed, frigid Pachic Haploxerolls
Kearns-----	Fine-silty, mixed, mesic Calcic Haploxerolls
Kearnsar-----	Fine-silty, mixed, mesic Pachic Calcixerolls
Kidman-----	Coarse-loamy, mixed, mesic Calcic Haploxerolls
Lago-----	Fine-silty, mixed, frigid Aquic Calcixerolls
Lando-----	Fine-silty, mixed, mesic Pachic Calcixerolls
Lanoak-----	Fine-silty, mixed, frigid Pachic Haploxerolls
*Layton-----	Sandy, mixed, mesic Typic Calcixerolls
Lewnot-----	Coarse-loamy over sandy or sandy-skeletal, mixed, mesic Aquic Xerochrepts
Lizdale-----	Loamy-skeletal, carbonatic, frigid Typic Calcixerolls
Logan-----	Fine-silty, mesic Typic Calciaquolls
Lonigan-----	Ashy-skeletal, frigid Vitrandic Haploxerolls
Manila-----	Fine, montmorillonitic, frigid Typic Argixerolls
Maplecreek-----	Coarse-loamy, mixed, mesic Oxyaquic Calcixerolls
Merkley-----	Coarse-silty, mixed, frigid Typic Calcixerolls
Moonlight-----	Coarse-loamy, mixed Pachic Cryoborolls
Niter-----	Fine, montmorillonitic, frigid Typic Calcixererts
Northwater-----	Loamy-skeletal, mixed Cryic Pachic Paleborolls
Nyman-----	Ashy-skeletal Vitrandic Cryoborolls
Oxford-----	Fine, montmorillonitic, frigid Vertic Xerochrepts
Parkay-----	Loamy-skeletal, mixed Argic Pachic Cryoborolls
Parleys-----	Fine-silty, mixed, mesic Calcic Argixerolls

# Soil Survey of Franklin County Area, Idaho

Table 25.--Taxonomic Classification of the Soils--Continued

Soil name	Family or higher taxonomic class
Pavohroo-----	Fine-loamy, mixed Pachic Cryoborolls
Picabo-----	Coarse-silty, carbonatic, frigid Oxyaquic Calcixerolls
Pollynot-----	Fine-loamy, mixed, mesic Calcic Argixerolls
Polumar-----	Loamy-skeletal, mixed Calcic Pachic Cryoborolls
Povey-----	Loamy-skeletal, mixed Pachic Cryoborolls
Preston-----	Mixed, mesic Typic Xeropsamments
Ricrest-----	Fine-loamy, mixed, frigid Calcic Pachic Haploxerolls
*Ricrest-----	Fine-loamy, mixed, mesic Calcic Pachic Haploxerolls
*Ridgecrest-----	Loamy-skeletal, carbonatic, frigid Typic Calcixerolls
Robin-----	Fine-silty, mixed Cryic Pachic Paleborolls
Sanyon-----	Ashy-skeletal, frigid, shallow Vitrandic Calcixerolls
Searla-----	Loamy-skeletal, mixed, frigid Calcic Argixerolls
Sedgway-----	Loamy-skeletal, mixed Boralfic Cryoborolls
Smidale-----	Loamy-skeletal, mixed, frigid Pachic Haploxerolls
Softback-----	Loamy-skeletal, mixed, frigid Pachic Argixerolls
Sprollo-----	Loamy-skeletal, carbonatic, frigid Calcixerollic Xerochrepts
Staberg-----	Loamy-skeletal, mixed, frigid Pachic Argixerolls
Sterling-----	Loamy-skeletal, mixed, mesic Typic Calcixerolls
Stinkcreek-----	Fine-silty over sandy or sandy-skeletal, mesic Aeric Calcicquolls
Thatcher-----	Fine-silty, mixed, frigid Calcic Argixerolls
Thatcherflats-----	Fine-silty, mixed, frigid Typic Natriferalfs
Toponce-----	Fine, montmorillonitic Argic Vertic Cryoborolls
Trenton-----	Fine, mixed, mesic Typic Natriferolls
*Trenton-----	Fine, mixed, frigid Typic Natriferolls
Valmar-----	Loamy-skeletal, mixed, frigid Typic Argixerolls
Vitale-----	Loamy-skeletal, mixed, frigid Typic Argixerolls
Welby-----	Coarse-silty, mixed, mesic Typic Calcixerolls
Wheelon-----	Fine-silty, mixed, mesic Calcixerollic Xerochrepts
Windernot-----	Sandy-skeletal, mixed, mesic Pachic Calcixerolls
Winn-----	Fine-loamy, mixed, mesic Cumulic Haploxerolls
Winwell-----	Fine, mixed, mesic Calcic Pachic Argixerolls
Wormcreek-----	Ashy-skeletal, frigid Vitrandic Calcixerolls
Wursten-----	Coarse-loamy, mixed, frigid Typic Calcixerolls
Xerochrepts-----	Xerochrepts
Xerorthents-----	Xerorthents
Yago-----	Clayey-skeletal, montmorillonitic, frigid Typic Argixerolls
Yeates Hollow-----	Clayey-skeletal, montmorillonitic, frigid Typic Argixerolls

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